JOURNAL
OF THE
BRITISH SOCIETY OF DOWSERS

Vol. XIV No. 102 DECEMBER, 1958

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BRITISH SOCIETY OF DOWSERS

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JOURNAL OF THE
BRITISH SOCIETY OF DOWSERS
Vol. XIV No. 102 DECEMBER, 1958

NOTICES

A Notice in red ink, enclosed in this journal, is being sent to all members who have not yet paid their subscription for the current year or have paid only part of it. It is hoped that these members will, if they wish to retain their membership, pay it without further delay.

* * * *

The Editor would be grateful if members, especially those living abroad, would send extracts to him concerning radiesthesia and dowsing which appear in local papers, giving *the name of the paper* and the *date of issue*.

* * * *

A book by Miss E. M. Penrose, called *Adventure Unlimited*, describing her experiences as a dowser, has been published by Neville Spearman Ltd., at 21/-.

* * * *

A translation of the Abbé Mermet's famous book, *Comment J'Opère*, is to be published early in 1959 by Messrs. Vincent Stuart Ltd. The title will be *Principles and Practice of Radiesthesia*.

* * * *

The following books have been added to the library :

Aluminium Utensils and Disease: the Dangers inherent in the Widespread Use of the Metal, by Dr. H. Tomlinson ; The C. W. Daniel Co. Ltd., 61 pages, 6/-.

Water Unlimited, by Kenneth Roberts, Doubleday & Co., 276 pages, $3.95.

* * * *

The three books published by the Society, namely :

Dowsing, by W. H. Trinder, *Radiations*, by T. Bedford Franklin, and *A Radiesthetic Approach to Health and Homoeopathy*, by V. D. Wethered, should now be obtained from Messrs. G. Bell & Sons Ltd., York House, Portugal Street, London, W.C.2, or from a bookshop.

* * * *

Six free copies of the *Journal* will be given, on request, to writers of articles in it, in addition to the usual copy.

* * * *

The price of the *Journal* to non-members is now 6s. post free. The price to members of new journals in excess of the free numbers is 4s., and of back numbers 2s.

The Society's badges can be obtained from the Assistant Secretary for 1s. 3d. post free.

* * * *

Contributions for the *Journal*, preferably in typescript, should be sent to the Editor at least *seven* weeks before the first day of March, June, September and December, if they are to appear in the respective *Journals* for those months.

* * * *

Communications for the Editor, and inquiries, should be sent to Colonel A. H. Bell, York House, Portugal Street, London, W.C.2.

MEMBERS

* Life Member

NEW

ALLAN, A., Kingscliff, Tweed River, N.S.W., Australia
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COWAN, Mrs., 11 Queens Gate, London, S.W.7.
DOMINA, A. J., 31 Hill Street, Newport, Vermont, U.S.A.
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MUTCH, W. E., 2806 Lincoln Street, Bellingham, Washington, U.S.A.
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WOOLLEY-HART, Mrs. N. D., c/o Barclays Bank Ltd., 1 Pall Mall, East London, S.W.1.

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POPPELMAN, R. J., 2658 N.E. 11a Court, Ft. Lauderdale, Florida, U.S.A.
SEARS, Mrs. H. P., at 94 Castlenau, Barnes, S.W.13
SCANLON, J. E., B.A., Ph.D., F.G.S., Pakistan Shell Oil Co. Ltd., Qamas House, Bunder Road, Karachi, P.O. Box 5011, Pakistan
WAKELYN-KING, E., c/o British Embassy, Teheran, Iran
WYNKOOP, Dr. J. H., 324 Front Street, Salinas, California
*WIGELSWORTH, Dr. J. W., 3 Deodar Lane, Bradbury Estates, Duarte, California

The following should have been shown as Life Members in the list sent out with the September journal: D. E. Clarkson, Miss M. S. Ferguson, M. R. Gibbons, Sir Christopher Gibson, J. Scott Pitcher.

RESIGNED

Wodehouse, Mrs.

OBITUARY

Eeman, L. E.

ANNUAL GENERAL MEETING

The twenty-fourth Annual General Meeting was held at the rooms of the Medical Society of London at 3 p.m. on Wednesday, October 22nd. It was attended by about twenty members, and Colonel Bell was in the chair.

1. The Chairman said that a report of the previous Annual Meeting had been published in the journal for December, 1957, and asked that the minutes be taken as read. This was agreed to by a show of hands and the minutes of the previous meeting were signed by the Chairman.

2. Colonel Bell then read the following report :

LADIES AND GENTLEMEN,

This is the twenty-fourth Annual General Meeting since the Society was founded on May 4th, 1933.

According to the list published in September, our membership on July 1st amounted in all to 567, including 202 Life Members. The number of Home Members was 328, and of Overseas Members 239. There is an apparent decrease in our membership, as the figure I gave last year was 658. This can be partly accounted for by the fact that a number of members had not appreciated the rise in the subscription two years ago, and had allowed their membership to lapse. It was also found that several members included in last year's list had not paid their subscriptions for the previous year, so that their names should have been omitted.

We have to regret the death of two notable members since our last Annual Meeting, remarkable not only on account of their achievements, but also for their great age, for both were over ninety when they died. One was Mrs. Kingsley Tarpey, whose name is familiar to all our old members on account of her work as a healer and as an accomplished artist. A note about her was printed in the Journal for last December.

The other was Admiral Sir Sydney Fremantle. His achievments as a great Naval Commander had nothing to do with dowsing, but he had been a member of our Society for several years. He took a sincere interest in water divining, and had indeed practised it himself on various occasions. Until his health began to fail he had been a regular attendant at our lectures and meetings, and often spoke briefly in making suggestions regarding the Society's procedure.

* * * *

The journal has been produced on the same lines as hitherto, averaging about sixty-four pages. It may be of interest to mention that each of our pages contains about 450 words ; so that from the point of view of *quantity*, I do not think that members and purchasers have anything to complain of. *Quality* is a different

matter, but judging from the letters we receive, it appears that most members find something in every journal to interest them.

At this point I would like to mention the lecture of Mr. Lucian Landau which he delivered to us after the General Meeting last year, and which was printed in the December journal. Speaking for myself, I consider this one of the most valuable contributions we have had for many years—possibly since the Society was founded—and I hope every member has read it.

No doubt much of the journal is open to criticism from a literary point of view, but, as Editor, I have never sought to reduce the writing of our numerous contributors to one dead level of literary mediocrity, but to preserve their wording and style (unless it is obviously faulty), as an indication of their status and as a revelation of their personality.

Whilst thanking all those who have sent contributions and cuttings, I repeat my annual plea that anyone, member or not, who has anything of interest to relate, should send an account of it to the Editor. Our existence really depends on the journal, as apart from the seventy or so members who are able to attend meetings occasionally, the only return the remaining members receive consists of the journal, and for Home Members in addition, the use of the books in the library.

During the past year eighty issues of books and magazines have been made from the library, slightly fewer than before.

* * * *

Between July 1st, 1957, and June 30th, 1958, nine lectures or addresses were given to the Society, namely :—

The lecture at the Annual General Meeting on October 23rd by Mr. Lucian Landau, entitled "*Mind—the Diviner.*"

On November 19th : "*Acupuncture ; Energy Therapy and Radiesthesia,*" by Dr. Martin Parkinson.

On December 11th : "*Radiesthesia in Psychological Healing,*" by Major Blyth-Praeger.

On January 15th : "*The Human Factor in Radiesthesia,*" by Mr. Noel Jaquin.

On February 11th : "*Environment: Man's Mechanism of Contact,*" by Mr. Roland Northover.

On March 26th : "*Healing Hands,*" Mr. W. V. Blewett.

At the Annual Reception on April 23rd : "*Materialisation,*" by Brigadier R. C. Firebrace.

On May 14th : "*A Study of Ecological and Geological Health Factors,*" by Dr. A. M. Janser.

On June 18th : "*Veiled Powers Sleeping in Man,*" by The Most Reverend Dr. O. A. Barry.

Seven of these lectures were published in the Journal.

Our thanks are due to all those who were kind enough to entertain and interest us by giving us the benefit of their knowledge and experience, especially to those who are not members

and have therefore no particular interest in our objects and progress.

The Secretary will always be glad to hear of anyone prepared to give us an address on a subject connected with Dowsing or Radiesthesia—even if the connection is of the most tenuous kind.

The Reception, as in previous years, took place in April and was well attended. The added attraction was the interesting talk by Brigadier Firebrace on "Materialisation," which I have just mentioned, a subject on which few, if any, are better qualified to speak.

It is a matter for comment that many of our lectures have little or nothing to do with the avowed objects of our Society. Although, with a certain amount of ingenuity, nearly every human activity can be associated with the perception of the unknown by means of involuntary muscular reflexes, it is difficult to find speakers on the more familiar and pragmatic (to use a word which has come into fashion lately) aspects of dowsing. Hence, in arranging lectures we have to wander down paths of knowledge and experience with which we may appear to have no immediate concern.

As mentioned in my Report last year, a week-end meeting from July 5th to 7th was held at Moor Park College. It was reported in the journal for September, 1957, so I will say no more about it.

We made an attempt to arrange another meeting in the current year, but all suitable dates had been booked up at the College and at two other places we approached. We decided, therefore, to abandon the idea, but have booked a week-end in July at the College for 1959.

* * * *

I have, as in the past, received a number of enquiries for dowsers by letter and telephone during the year under review, but I have nothing to report regarding the result of the information I have given.

The existence of our Society is now well established and inquirers have no lack of sources to which to refer for our address. Apart from the London Telephone Directory, we are mentioned in *Whitaker's Almanack*, *The Farmer and Stock-Breeder Year Book*, *The Municipal Year Book*, *The Water Engineer's Handbook*, whilst our name has been noted by the Country Gentlemen's Association and the Institution of Water Engineers.

Interest in our objects seems to be mainly directed towards its medical aspect in this country, but in the U.S.A., where we have nearly one hundred members, the finding of water and oil—especially in the West—seems to be the main preoccupation—as you can gather from the articles by Mr. Gaston Burridge, one of which appears in nearly every issue of our journal.

However, Colonel Merrylees has been much engaged in locating water in the West Indies and in North Africa, but cannot report

anything definite until the results of bores have been obtained.

Mr. A. C. Williamson, in Tanganyika, is fully occupied in making locations for water in East Africa, and, as you will have seen from his report in the September journal, has achieved some considerable results. He sends me copies of his reports, as each survey is made, and copies of the driller's reports after the bores have been completed, so that I can compare the figures. If Mr. Williamson can maintain a high percentage of successes, the spread of such information on a wide scale should go far towards the general recognition of dowsing for water as a practice of real value.

* * * *

As you can see in our accounts, our Research Fund, from which no grant was made during the year, now stands at £1,036 1s. 0d., and we can see no immediate prospect of spending any of it.

I think that Mr. Landau must have convinced many people by his lecture at our General Meeting last year that dowsing is primarily an unconscious mental process, and that the attempt of many investigators in the past to attribute the dowser's reflex movements to electromagnetic radiation of some definite wavelength, or mixture of wavelengths, is to pursue a will-o'-the-wisp. Nor has any investigator yet shown that the dowser's reflex movements are caused by the direct stimulus of electromagnetic radiation, though most dowsers have no hesitation in assuming that this is so.

At the same time, as the unconscious mind appears to appreciate electromagnetic influences of certain kinds, for instance gamma radiation, more readily than influences of a milder nature, I think it can be assumed that the neuromuscular system is conditioned in varying degrees by the electromagnetic ambiance, in a manner to ease the work of the unconscious mind, thereby making the reactions more pronounced.

So far as results are concerned, it does not seem to matter whether the stimulus comes primarily from the unconscious, or is the result of the direct electromagnetic radiation on the neuromuscular system. But the first assumption renders untenable —and even absurd—the belief in some unknown type of radiation resembling electromagnetic in its behaviour, and capable, like the latter, of exerting a definite physical force. Acceptance of the unconscious mental theory enables us to make a clean sweep of the complication of horizontal, vertical and carrier waves so much favoured by French radiesthetists, and also of the attribution of a *physical* effect to bits of coloured paper and so on.

What then is the nature of the research which can be usefully carried out ?

Towards the end of his lecture (page 87 of *B.S.D.J.* XIV, 98) Mr. Landau, in talking of automatic script, said " it was his unconscious mind that in the ultimate stage actuated the muscles

directing the slider or the pen."

I think this suggests the sort of investigation required to answer the following questions :—

(*a*) *In what part of the body* is the seat of this particular aspect of the unconscious mind situated ?

(*b*) What is the neuromuscular process by which the muscles are activated ?

Any research which would give an answer to these questions would be well worth while.

If we agree with Mr. Landau, in the psychological origin of the dowser's reactions, and reject as unnecessary and ill-founded the complicated methods and dubious theories so much favoured by French and Belgian dowsers, there seem to be several points which still require an explanation. For instance, how is it that a dowser can transmit the dowsing sensitivity to a non-dowser merely by touch? No doubt other phenomena requiring explanation will occur to you.

* * * *

Before I close, I will ask you to join with me in expressing our thanks to Mr. Somers Taylor for his services as Honorary Secretary and Treasurer during the past year. He has now filled this essential office for eleven years, as he was first elected at our General Meeting on October 15th, 1947, and the value of his freely given, conscientious and ungrudging services during this lengthy period, cannot be over-estimated.

I am sure you will be very sorry to hear that our very competent Assistant Secretary, Major R. E. Johnson, whom we engaged nearly a year ago, passed away suddenly on the night of September 26th.

Major Johnson was a barrister by profession, but a soldier by inclination, for he served as an officer in both World Wars. As one would expect from his training, he was meticulously accurate and careful in every question he dealt with, and the work he did for us, though on such a small scale, was of real benefit to us.

3. The Honorary Treasurer, Mr. Somers Taylor, then dealt very thoroughly with the accounts, copies of which had been circulated with the notice of the meeting. As regards receipts, he pointed out that the fall in the amount of annual subscriptions was partly due to the fact that some of them, received at the end of June for the coming year, had not been included, whereas in the previous, 1956-57, subscriptions so received in advance, had been included.

As regards payments, the figure shown for the printing of the journal included the cost of five journals, whereas the figure for the previous year included only four.

In the balance sheet the Research Fund now stood at £1,036 and the Endowment Fund at £423, showing an increase of about £130.

THE BRITISH SOCIETY OF DOWSERS

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 30TH JUNE, 1958

1957		RECEIPTS	£ s. d.	£ s. d.
£	£			
539		Subscriptions—Annual ..	506 4 6	
55		—Life ..	95 4 9	
—	594			601 9 3
	91	Meetings		81 18 0
	78	Sales—Journal		87 4 3
	31	—" Dowsing "		51 2 3
	57	—" Health and the Pendulum " ..		60 5 2
	13	—" Radiations "		10 4 0
	1	—Badges		15 0
	8	Donations		12 12 5
	1	Miscellaneous		7 3 4
	–	Income Tax Refund		27 15 0
	–	Publication Account Taxation Provision no longer required		19 11 0
		Interest—Gross		
28		On Defence Bonds ..	21 0 0	
		On Post Office Savings		
4		Bank Deposit	4 8 10	
14		On Bank Deposit Account	34 4 3	
46			59 13 1	
		Less Income Tax due		
20		thereon	25 7 6	
—	26			34 5 7
	–	Refund of Advance to Research Fund ..		12 3 9
	£900			£1,006 9 0

1957		PAYMENTS	£ s. d.	£ s. d.
£	£			
	322	Printing of Journal		357 10 3
	4	Purchases for Library		1 9 9
		Expenses of " Health and the Pendulum "		
27		Payments to Author ..	27 18 9	
2		Publication	3 16 5	
1		Insurance	11 3	
—	30			32 6 5
		Expenses of " Dowsing "—		
2		Publication	2 16 0	
–		Insurance	7 9	
—	2			3 3 9
		Expenses of " Radiations "—		
1		Publication	1 1 1	
–		Insurance	6 5	
—	1			1 7 6
153		Meetings	161 19 6	
110		Office Expenses	163 1 5	
42		Printing and Stationery ..	27 13 2	
68		Postage and Cheque Books	60 4 9	
1		Miscellaneous	9 3 7	
2		Corporation Duty ..	3 16 8	
–		Income Tax	6 7 6	
—	376			432 6 7
	12	Advance to Research Fund		– – –
	153	**Balance** being Excess of Receipts over payments for the year		178 4 9
	£900			£1,006 9 0

BALANCE SHEET AS AT 30TH JUNE, 1958

1957			£ s. d.	£ s. d.
£	£			
		Surplus Account—		
1,222		Balance as at 30th June, 1957.. ..	1,374 14 10	
		Add Excess of Receipts over payments for		
153		the year	178 4 9	
—	1,375			1,552 19 7
		Endowment Fund—		
		Balance as at 30th		

1957			£ s. d.	£ s. d.
£	£			
	340	**Balance at Bank and Cash in Hand**		190 16 4
		Cash on Deposit—		
		Post Office Savings		
173		Bank Balance at 30th June, 1957 ..	177 13 6	
4		*Add* Interest	4 8 10	
—	177			182 2 4
		Barclays Bank: Balance at 30th June, 1957	513 10 1	

		over payments for										30th June, 1957 ..	177	13	6
153		the year	178	4	9				4			*Add* Interest	4	8	10
1,375						1,552	19	7	177						182	2	4
		Endowment Fund—										Barclays Bank: Balance			
		Balance as at 30th							–			at 30th June, 1957	513	10	1
90		June, 1957.. ..	301	12	1				500			*Add* Amount paid in	400	0	0
57		*Add* Entrance Fees ..	58	12	8										
154		Other Receipts	62	16	2				500				913	10	1
	301					423	0	11	14			*Add* Interest ..	34	4	3
		Research Fund—								514					947	14	4
		Balance as at 30th										**Investments—**			
1,087		June, 1957.. ..	1,010	0	0							3½% Defence Bonds			
		Add Interest accrued,							200			(Conversion Issue)	200	0	0
21		less tax thereon ..	26	1	0				500			3½% Defence Bonds	500	0	0
		Advance from Surplus								700					700	0	0
12		Account	–	–	–							**Research Fund Investments—**			
1,120			1,036	1	0				10			3% Defence Bonds ..	10	0	0
		Less Grants made							1,000			4½% Defence Bonds	1,000	0	0
110		during the year ..	–	–	–				–			Cash	13	17	3
1,010			1,036	1	0					1,010					1,023	17	3
		Less Refund of advance from Surplus															
–		Account	12	3	9												
	1,010					1,023	17	3									
		Publication Account															
20		**Taxation Provision** ..	19	11	0												
		Deduct Amount written back to Receipts and Payments Account. Provision no longer															
–		required	19	11	0												
	20					–	–	–									
		Creditors—															
		Inland Revenue:															
		Income Tax on Research Fund Investment Interest	19	5	0												
15		Income Tax on Surplus Account Investment Interest	25	7	6												
20																	
	35					44	12	6									
	£2,741					£3,044	10	3		£2,741					£3,044	10	3

We have prepared the foregoing Accounts from the Books and Records produced to us, and certify the same to be properly drawn up in accordance therewith.

Salisbury House, London Wall,
London, E.C.2.

1st *August*, 1958.

JAMES, EDWARDS & CO.,
Chartered Accountants.

WHAT IS THE REAL NATURE OF DOWSING AND RADIONICS?

An address delivered to the joint meeting of The Radionic Association of Great Britain and The British Society of Dowsers at Oxford on September 6th, 1958, by

H. TOMLINSON, M.B. CH.B., M.R.C.S., L.R.C.P.

Ladies and Gentlemen,

I am grateful for the privilege of giving this talk to the members of the two Societies, which represent the great bulk in this country of those whose interest is in radiesthesia and dowsing in its various forms. After thinking the matter over, I decided to choose some aspect of radiesthesia to talk about, which might be of interest to those who use the stick as well as to those who use rods or the pendulum.

My subject then, is, what is the real nature of dowsing in general. How can it be explained? How does the penduum act and how does any radionic machine work?

If people ask us how our results are obtained, it behoves us to have some sort of explanation ready to offer them. Let us therefore see what explanation can be afforded of the effects noticed in our work in its various spheres. Any explanation, or theory, has to afford a satisfactory explanation of the following facts:

Firstly, in the case of the divining rod,

(*a*) why the rod dips over underground running water,

(*b*) why the rod appears able to indicate the depth of such water and its approximate quantity,

and secondly, in the case of the pendulum,

(*a*) how it can indicate a matching, or otherwise, of two objects,

(*b*) how it works in all the complex processes of modern radiesthetic medical work,

(*c*) how it works in map dowsing, when, say, a field in Australia can be prospected over by the pendulum in an English room,

(*d*) how it works on photographs, when disease can be diagnosed,

(*e*) how radionic machines function, and what is the meaning of rates,

(*f*) how broadcasting works and what it works on,

(*g*) how the de la Warr camera, which translates spiritual effects into physical effects, functions?

These, briefly, are some of the main aspects of our art which require explanation, if such be possible.

It is a somewhat formidable list, and what I have to say to you is my own impression of the answer. This impression may be well off the mark, but at any rate I hope it will be of interest and lead to thoughtful comment.

It must be realised that one theory must provide a satisfactory answer to all these questions. If a theory does not do this, it cannot be true.

Let us look, therefore, at some of the theories which have been put forward to explain dowsing effects.

W. H. Trinder, in his book entitled *Dowsing* published in 1941, stated that for 200 years the theory held by dowsers postulated that all matter radiates. Certain people were held to be sensitive to such rays, which caused a change in their muscle tone. This change in muscle tone resulted in variations in the rod or pendulum movement or in the presence of the stick. Dowsing, therefore, according to this theory, was due to the effect of this radiation on the human body. I think it is true to say that such a radiation is not known to orthodox science because apparently it does not form part of the electro-magnetic spectrum.

It is as if the human body is like a wireless set, capable of being tuned in to the various specific wavelengths.

It is certainly a fact, as J. Cecil Maby and T. Bedford Franklin have described, that changes of muscle tone do occur when the dowser passes over underground water. These observers concluded that a high frequency radiation was emitted by such underground streams and this radiation was held to be the prime cause of the dowsing phenomena.

S. W. Tromp, in his *Psychical Physics*, published in 1949, carried the matter about as far as it can be carried on a physical basis. He concluded that pendulum movements do bear a relation to, and are affected, by applied electrical or magnetic fields, even when the operator was unaware of the existence of such fields. He stated that the movements of pendulum or rod over non-living objects, were probably due to the stimulation of nerve endings near the surface of the skin. Such stimulation was then conducted to the different sensory brain areas and thence to the motor brain areas and onwards via the motor nerves to the arm muscles with resulting pendulum movement. This explanation, of course, keeps the matter on an entirely physical basis. Every dowser knows that magnetic and electrical forces, colour, shapes and designs, do affect pendulum or rod movements. For example, a magnet standing on its end magnetic East or West of a patient's sample, will either block out, or intensify, the pendulum movements, according to the actual angle of rotation of the magnet in reference to the magnetic North-South axis.

A radium block placed magnetic North or South of a patient's sample will reverse the pendulum movements if the block is stood on end, as compared with the pendulum movements which occur when the block is laid lengthwise in the magnetic meridian North or South of the sample. It is quite certain that, either when one works with a rod, or with a pendulum, over underground water, or over samples from patients, that modifications in the pendulum or rod movements do occur when the dowsing field is acted on by magnetic or electrical forces or by those associated with colour or shape.

It is simple to suppose, therefore, that all matter radiates, and then to see how other physical forces could interfere with such radiation. But orthodox science knows not this radiation, though one can visualise that there may well be other ranges of radiation apart from the known electro-magnetic band of orthodox science. Such extra-radiations might be only detectable by something more sensitive than any man-made instrument, for the human body can react to far more delicate emissions of energy than any instrument as yet invented. But, assuming it to be true that dowsing effects are produced by such un-named radiations, does this enable one to explain map dowsing, or dowsing over photographs?

Many dowsers are able, with the pendulum or by other means, to find out from a photograph whether the subject is well or not and to locate disease, if present. They can also ascertain if the photographed person be alive or dead. Over maps of distant countries suitably trained dowsers can prospect for water, oil and gold, even when they have no first-hand knowledge of such country.

This *is* dowsing, just as much as when the rod is used over underground water. Can therefore the theory that all matter radiates afford a satisfactory explanation of radiesthesia? I cannot see how it can possibly do so. Any explanation of one aspect of dowsing which cannot cover another, is obviously not a true and full explanation of the science. One must therefore discard this theory and seek for another explanation which, as I have said before, must afford a satisfactory explanation of all aspects of dowsing and radiesthesia.

I want to refer now to the books written by Dunne, entitled *Nothing Dies*, *The New Immortality*, *An Experiment with Time*, *The Serial Universe*.

These are difficult books to read and comprehend but I think all dowsers should attempt to master them. Their author was a mathematician who believed, I think rightly, that the infinite could be approached by mathematics. One of the matters which Mr. Dunne emphasised was that dealing with double aspects.

Examples of such in orthodox science are first of all the double aspect of light, wherein it is shown to be both a shower of bullets

speeding in a straight line, and also a train of waves. Space has been shown to be synonymous with time, and matter itself has been proved to be a group of waves which have been spreading throughout space for millions of years, yet matter also can be seen to stay "put" as the presence of fossils shows. It is therefore essential to understand how a double aspect occurs.

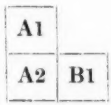
If we take two substances, A2 and B1—both of which substances we regard as real things in our world, and use B1 to investigate A2. then B1 will provide, according to its nature, some information relating to A2, which information we shall call A1.

If, for instance, B1 is a measuring rule, the only information it can give about A2 will be a length and so A1 will represent that length. If however B1 is a weighing machine, A1 will be a weight.

It is clear, then, that if two such things be taken, and one used to investigate the other, information will be obtained which entirely depends on the nature of B1. Such information is called an abstraction.

Now all sciences are based on and made up of abstractions, for they are all composed of the results of experimental explorations by various B1's on A2. All sciences therefore, and radiesthesia included, must be composed of abstractions. This is a fact which must never be lost sight of if one's thinking is to be logical.

Perhaps you will visualise the matter more clearly by looking at these three bricks, if you don't mind my reverting to childish pursuits!



Here you see B1 investigating its neighbour A2, and producing the abstraction A1 on the higher level. If you, as observers, look at these bricks, you will see A1 when you confine your attention to what B1 elicits. On the other hand, if you can withdraw your attention from B1 you will see A2 in all its completeness.

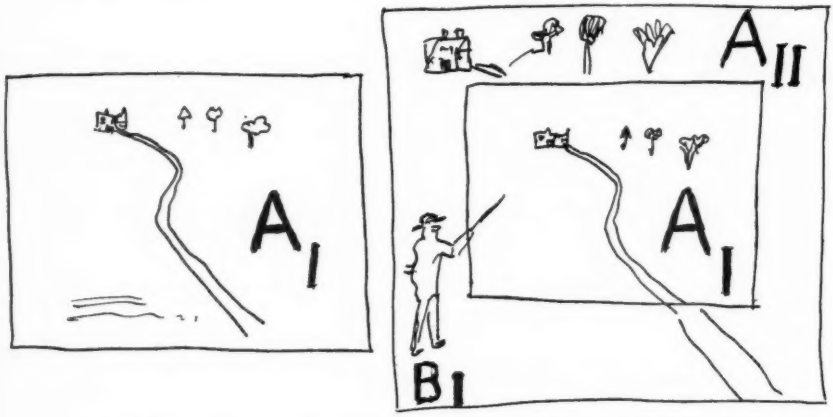
Note that A2 is not an abstraction but that A1 is. So you see that there are two views visible to you of these bricks—and the same two views are present in radiesthesia. They are called, respectively, Physical and Psychical Radiesthesia. The former assumes that all matter radiates and has a wave form, and that the pendulum reacts specifically to such wavelengths, whilst the latter deals with the more mental effects—or even—as in the case of one doctor I know, with the "Spirits of Radiesthesia."

Of course, you can now realise that two views of one thing are incorrect. You should not regard an A1 and an A2 as one and the same thing. When two views appear in the explanation given

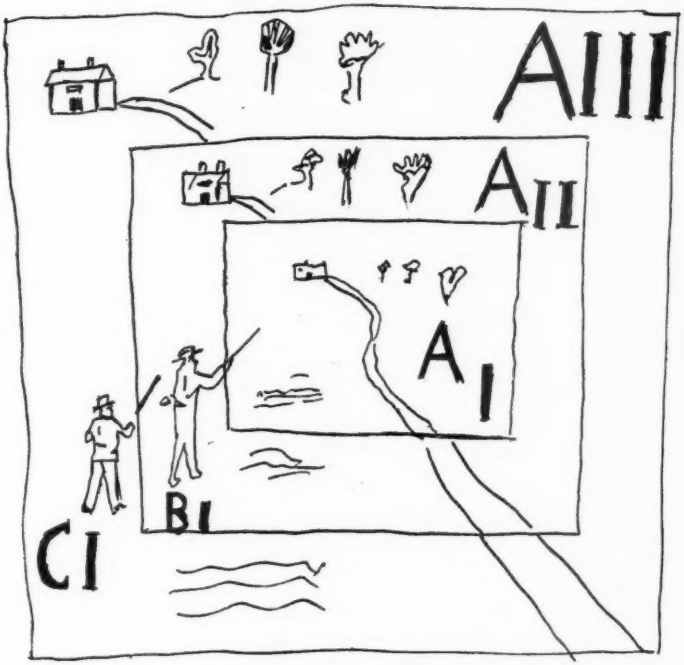
of a science one can conclude that a mistake is being made, and that an A1 and an A2 are being confused. So much must be made clear, in dealing with this question of double aspects.

Now, what we have to decide, is what each of these bricks represents in radiesthesia, and to help us to decide these points, it is necessary to follow Mr. Dunne somewhat further.

Supposing you asked me to draw for you a picture of the universe as I myself saw it and I did so—and here it is, a drawing which I mark A1. Ignoring the obvious fact that I am not an expert artist, I yet ask you to accept this as what my view of the universe is. Having proudly produced it for your inspection I consider whether this can be a complete representation of the universe known to me? After considerable thought, I realise that I have left myself out of the picture and so, adding a little more foreground, I do another picture, showing myself drawing the first picture.



Again I consider, does this second picture give me a complete representation of my universe? The figure I have drawn is of a man who is unaware of his own existence and *I* have more knowledge than is shown in the drawing of this second picture. So I attempt to portray this greater knowledge by repeating the process —so here is picture number three (overleaf). Of course the knowledge thus depicted must always be less than the knowledge employed in drawing the particular picture, or, in other words, the mind which any human science can portray will never be an adequate representation of the mind that can make that science. And the process of correcting that inadequacy must follow the steps of an infinite regress or serial and I must make quite clear to you just what a serial is. It is a chain of terms going on to



infinity. Each term, with the exception of the first, being linked in similar relation with those on its either side. For example : 1st Term, every child ; 2nd Term, had a father, 3rd Term, who had a father. The first term mentions the words " every child " ; the second term states he had a father and this is all straightforward ; the third term gives some further information which is not helpful in describing the first term, but provides just a more complex answer and the endless regress is therefore entered into at the third term. Only the first and second terms can be validly used in seeking for information, and after that a barrier to further knowledge appears which is a logical fact which must be realised. Referring back to our three pictures ; we can see that they deal with two artists and the worlds known to them, and thus we are dealing with the first two terms of a serial. These two terms can be logically used to provide information, but if an enquirer seeks the representation of the complete artist and the real complete world, he will enter into an endless regress which will mock him to eternity.

It is therefore justifiable to use the third picture in trying to solve what radiesthesia really is, but we are not yet at a stage to do this and have to follow Mr. Dunne a little further, and I would like to try to explain the regress of time to you.

A line drawn across the blackboard from left to right can represent time. We can, if you like, enter a little arrow, to show which way time moves, and in such case the past will be on the left-hand side of the blackboard and the future on the right-hand side, the present moment, or " now " mark, I can represent by a cross, somewhere along the length of the line.

But, this " now " mark will be moving from left to right, and if so, you will realise it will move with a certain speed. The time which times this speed is true time, as opposed to the time we call time, which is really pseudo-time. The real world is represented by A2 and this is present in this same true time which we can call Time 2. A2 is 4-dimensional. The world we have been accustomed to call by this name is A1—a three-dimensional abstraction.

That which has come into existence in A1, such as a flower in bloom, the colours of a sunset, or knowledge, remains for ever present in the eternity of Time 2. Death is only in Time 1, but life everlasting is a feature of Time 2.

In the world of A2 and Time 2, communication is not by word of mouth, but through mind communicating with mind. Each one of us can regard one's view of the universe as a " self " and that which is " NOT self." Each one of us can still objectively regard this self and NOT self and therefore must be conscious of yet another self which owns the first-mentioned self. Self-consciousness is therefore also a regressive conception. Each individual mind has a superior mind which owns it and at the ultimate end lies the unknowable universal mind in which each individual mind has its tiny counterpart and share. Every mind can therefore communicate with other minds via their common focus in the universal mind, but this can only take place when B1, whom we shall henceforth call observer 1, is *not* functioning. It is only then that C1, whom we can call observer two, can communicate with other selves on other world lines.

It is certain that, in sleep, when the brain is dormant, and after death, when the brain is disintegrated, observer two can function independently of observer one. I now suggest to you that this is also possible by the use of mental discipline and training and that therefore all radiesthesia and dowsing knowledge about any subject comes when the operator can voluntarily banish observer one. This can also occur at times when the mind is just very quiescent and affords many examples of telepathic thought transference.

Now, harking back to our third term picture, A1 is a 3-dimensional abstraction, B1 is that object which we have called observer

one and which I, as C1 or observer two, regard as myself—a self free to explore the 4-dimensional countryside A2. I, observer two, am standing in a 5-dimensional countryside. My attention in ordinary waking life follows observer one, as it travels through A2, watching the constant series of pictures presented for my attention. Each picture will be accompanied by a corresponding change in my brain. But, when that brain is non-active, as in sleep or death or voluntary non-use, my attention no longer follows observer one and instead is free to wander over the A2 stretch along that world line of mine on which all the sensory impressions I have experienced, or will experience, are displayed and recorded. And in that condition, observer two is able to perceive the real contents of A2.

Dr. Steiner stated in one of his books " In the course of such training (he was writing about imaginative or intuitive knowledge) we attain a strengthening of the force of thought of which we had not the remotest idea before. And with this new content of our own human being there is revealed a world content, which, though we might have divined its existence, was unknown to us by experience till now." In other words he was able to tap the reservoirs of pre-existing knowledge made by ages of past thinkers and was possibly able to tap the fountain head which gave the reservoir its being.

Radiesthesia gives one information which one did not possess before. I suggest, further, that knowledge unknown and unknowable to a medium in his or her ordinary waking state, which is spoken in the trance state, is one more example of the functioning of observer two with observer one dormant. In such trance states the medium will be free to contact other minds, and other knowledge, and may even be able to form physical manifestations.

Mediums in trance always show a marked power to read the mind of the person who has come to seek guidance. The medium's observer two will find this just as easy. In 1954 J. Allen Boone wrote a book called *Kinship with all Life* (published by Harper & Bros.) wherein he describes how animals communicate with each other and with him and how he was able to maintain a two-way bridge of communication with them. I am as certain as he is, that lines of communication can be maintained with even a fly, provided that observer one is not functioning. Mr. Boone wrote in this book this little passage—he was referring to a particular fly which he was able to call to him mentally and who would then alight on his finger : " That neither he nor I were originating causes for anything, but instead were individual living expressions of a universal mind that was for ever speaking and living itself through each of us and through everything else."

So, in dowsing and radiesthesia, with instruments or without, observer two can provide all the necessary information and know-

ledge about underground water, map dowsing, medical radiesthesia, with this proviso—the operator has to train himself mentally to do the work. This involves also the learning of how to suppress the action of observer one voluntarily.

Two out of every three people can, if they wish, learn radiesthetic techniques. The knowledge and information gained is new knowledge, that is knowledge that was NOT previously in the operator's mind. It must be realised that at any point the suppression of observer one may fail, and if this occurs the attention of observer two is instantly diverted from his contemplation of the 4-dimensional world to a contemplation of the 3-dimensional abstractions provided by observer one.

Here lie radiesthesia's mistakes, often unavoidable through force of circumstances. They can only be minimised by mental training, for the communication lines between one's observer two and other selves need constant use to make them operate easily and smoothly. The communication is to other selves in A2 and not in A1 and it takes place in true time and not in pseudo-time. Hence the operator's observer two can perceive the whole world lines of other selves if he wishes to make contact with such.

On the death of a patient, for example, one's observer two can still contact the astral and higher bodies of that patient, but not the physical and etheric bodies. So it looks as if the higher bodies are associated with observer two and the lower ones with observer one.

All extra-sensory perception knowledge comes to one in this way, but the process can be modified by certain factors. Each operator forms a series of mental concepts, not only concerning what he considers as disease, but also concerning actual pendulum movements. All variations of pendulum movement, gyration, oscillation and so on, are, in my opinion, the results of mental concepts. One has to learn the pendulum movements associated with yes, and with no. Once such formulae of disease ideas, and a working theory of pendulum or radionic machine action are adopted, then the rails are laid and the train will run along those lines.

It is as if each operator is known by his own specific kind of painting and the new knowledge which comes to him will be an embellishment of his own particular style and hall mark. Each self, in any case, has its own individual outlook on non-self and therefore there are bound to be multiple variations in dowsing techniques. Such variations are all present in the infinite pattern. Polarity itself is a concept, although at first glance it may not seem so.

Radiesthesia grows and grows, and its concepts are always on the increase. The more of them one learns the more the strokes of the divining brush follow their pattern. Hence the

doctor whom I saw gravely thanking "the spirits of Radiesthesia" for information given, was not so far off the mark as I thought when I saw him working. A sample from a patient, as well as a map of an area, or an anatomical drawing, all act as communicating links in a conceptual capacity. All substances, be they alive or inanimate, are products of what J. E. R. McDonagh calls "that one thing." A link binds each to all.

When electrical or magnetic fields are applied to a dowsing zone whilst dowsing is taking place there may be modifications or reversals of pendulum or rod response. I regard such modifications as interferences in pure dowsing, and the modifications will not generally provide useful additional information. In any case they are mostly associated with learnt concepts, and function via observer one. Endless work can be done by studying the effects of applied magnetic and electrical fields, the use of shapes and colour, but generally without any increase in knowledge of value in, say, diagnosis of disease, however much of value it may be as exploration into experimental radiesthesia in general.

I turn now to the use, in diagnosis, of the various radionic machines. As you know, these make use of rates—such rates representing an organ, an element, or a diseased condition. Each rate is purely a mental concept on the part of the operator, formed by observer number two. It can also equally well be regarded as an ohmage, or a length of wire. Once a concept is formed it acts for that operator in a specific way. Two different operators, using two different machines, will produce quite different rate numbers but each will have his band of followers who will adopt those rates and who will find that, as concepts, they work.

Mr. de la Warr tells me that, on certain occasions, operators in different parts of the country have worked out rates for conditions for which rates had not hitherto been ascertained. He tells me that the rates were generally identical in regard to the actual numbers used in the rate, except that complementary numbers, i.e., subtracted from 10—appeared in some cases, or that the order of the numbers varied. In his opinion, there is always a numerical relation present in such rates.

I have here a book of rates worked out by the late Dr. McRoberts twenty-two years ago. They are quite different from the rates in use to-day. It includes such a difficult conception as 119, 119, 091 for "Relative Truth." The important thing is the concept. Even though it is formed by one operator, others can adopt it. Each operator will also follow the set pattern designed by the originator of the radionic machine, in regard to disease ideas.

It must be remembered that nature cure therapy will not allow that germs are disease causers, but that they are secondary

invaders, yet radionic machine work often reports a germ here or there as a causative agent.

The next subject I have to turn to is the de la Warr camera. How does it work and what is the meaning of its photographs? I regard this camera as a very important subject because it has a relation to the basic tenets of radiesthesia. My thoughts about the camera can be crystallised somewhat as follows:

In the issue of the journal *Mind and Matter* for June there is a photograph of an open penknife, which was taken in this way. The operator (the de la Warr physicist) was shown this penknife open, and was asked to visualise it mentally. He then placed on a table, in front of him, a box containing an unexposed plate and concentrated on his mental image of the penknife, for a short period. The box was then taken into the darkroom and the plate developed. The result was a clear picture of the opened penknife, which picture showed the handle part as being more light refracting than the blade. This picture suggests that the camera pictures were taken by the same basic process. It is true to say that the possibility of applying rates to the camera would prove of additional help as concepts. It is a fact that only two people, so far as I know, have been found who can place the plates in the casette and operate the camera and produce good results, and that by far the major part of this work has been done by the laboratory physicist here.

I now draw your attention to the many demonstrations of ectoplasmic forms which have been produced by trance mediums. Such manifestations have, and can be, photographed. I am quite certain, from investigations I have made in this matter, that the photographs produced by the camera are photographs of ectoplasmic manifestations, and that therefore they are a function of the laboratory physicist who, in my opinion, is an advanced physical medium. This does not in any way minimise the importance of the camera or its fascinating field for study. I would also point out the double aspect present in its photographs:

(1) It can portray a wire as a wire, so it can be recognised as such;

(2) It can portray a concept, such as the flower form in a seed, or atomic structure in a crystal.

My view then, of the camera, is that the observer two of the special operator can cause, by his own unusual powers, transfers of spiritual values and can portray past, present and future under certain conditions. He also can, by the exercise of his own powers, portray concepts—such as a Cross in the case of "Blessed Water." The Cross, in the form known to Christian churches, is a pure concept, and a concept of the human mind.

Intelligence, in the shape of observer two, has to be the motive power of an otherwise inanimate camera, which can never be worked by remote control by anyone. Remember that, via the

observer two of the physicist, actual divination occurs, besides the transfer of non-physical matter into physical matter.

An ectoplasmic manifestation, per se, is not divination, but this camera, plus the active observer two concerned, does provide examples of pure divination, and therefore falls within the radiesthetic field. I do hope that further attempts will be made to extend its use, for the pendulum is quite capable of finding people who can conduct the whole orchestra involved in the camera technique.

So far we have dealt with information reaching observer two about other products of that one thing—but in our work that is only half the battle. We have to try and cause disease to vanish. This means, that admitting that one's observer two can elicit information from other selves, is it observer two who also treats and affects those other selves ?

In radiesthesia, one uses two chief methods in treatment. The first is the use of potencies and herbal remedies and, to a minor extent, drugs. The second is the use of broadcasting of a remedy. Can we form any conclusions as to how these two methods operate ?

Consider the use of potencies first of all. A potency, because of the repeated dilutions and succusions, carries inside it what is called a vital force. It is assumed that each potency of a remedy vibrates at a certain wavelength. This, mind you, is an assumption not proved by orthodox science, though it is true to say that the pendulum will detect changes in potency value. A liquid potency of aluminium 6x, if boiled, will very soon change up into much higher potency values as 1m. But it is also true to say that the effects of potencies can only be demonstrated on living matter and on nothing else.

If a human body departs from the normal, one can consider that its rate of vibration will also depart from the normal. One can then visualise the addition of a certain degree of potency energy in the form of a remedy in potency and that this addition will restore the body's rate of vibration to normal and cause disease symptoms to vanish.

Leaving this matter aside for a moment let us turn to broadcasting. I think that there can be only *one* explanation of how treatment of either variety works, and it should be easier to ascertain this from thinking about broadcasting, which is really simpler than the use of remedies in potency.

Broadcast treatment corresponds to a Y where one upper limb is the radionic machine on which a curative rate is applied. The other limb connects to the patient via his sample. The lower branch is the earth connection. The effect of putting on a rate in broadcast treatment is to separate the patient's sample from the earth's surface by interposing a length of wire. It is as if the

patient's sample was perched on a little platform in the air, this platform being connected to the earth by a wire. The environment of the sample is therefore altered and one can appreciate that the vibration rate would then be changed.

Certainly then the vibration rate, or wave form theory, supplies an apparently suitable answer to these two matters. Is it in fact, though, the true answer ? May this not be a view *one*, in the same physical divining can be so considered ? If a sample is diagnosed from, either by pendulum or radionic machine, in the complete absence of all details of the patient of any sort and the indicated remedy given, or the indicated broadcast made, the results are often not impressive at all. Mr. de la Warr has pointed out the same thing in that he found it was necessary to know the name and address of each person whose sample was being photographed.

As the divining side of the work is due, in my opinion, to the action of observer two in the operator, surely, logically, the same observer will be the active agent on the treatment side. A rate is a concept, after all, and such a concept has to be in the operator's mind when he does the broadcast. Broadcasting really, *to be effective*, implies the need for as much concentration and mental discipline as does the divining side of the work.

The action of remedies in potency I class in the same way : they become concepts capable of being transferred by observer two, to other selves.

I well remember dosing out remedies in potency to patients before I learnt of radiesthesia, and I was impressed by their lack of effect. It is true of course, to say that I was also not well versed in homoeopathy, but the point is, I *used* the remedies for certain conditions for which other homoeopaths had said they would be curative. This could appear to be due to lack of skill, but I am inclined to think that it was due to lack of mental training in the projection of these concepts.

To turn now to spiritual healing, which is very much to the fore these days : The point is, that there is no difference, in my opinion, between spiritual healing and the healing that occurs with the use of radiesthetic techniques, except that in spiritual healing, there is added prayer to the Divinity. Now it is observer two who is the active link in the chain leading up to the ultimate observer.

Any sincere attempt to cure a patient by any radiesthetic approach involves the same agent. If one considers " prayer," one can easily visualise that true prayer can only be made whilst one's observer two's attention is *not* fixed on the abstractions of the A1 world.

You may consider that I have not explained how cure effects can arise. But apart from indicating that each self is related to, and in contact with, other selves, and thereby capable of affecting

those other selves for good or for ill, one comes up against a barrier against further knowledge, because one will be entering into the fourth term of a serial. If any information be obtained it will only give a more complex answer. It is better to realise that there is a duality in radiesthesia which reveals, on the one hand, its apparently physical nature, and, on the other hand, its apparently non-physical nature, and that there must be limitations to the knowledge of its make-up. Only such a view will correlate all the facts. Albert Einstein wrote in one of his books : " The great mystery story is still unsolved, we cannot even be sure it has a final solution. The more we read, the more fully do we appreciate the perfect construction of the book, even though a complete solution seems to recede as we advance."

Before concluding, I thought I would mention to you a few more double aspects :

(1) The iris of the eye as an anatomical structure ;

(2) The pictures given by the iris in iris diagnoses wherein many disease conditions are shown by the markings ;

(3) The hand as an anatomical structure ;

(4) The hand lines which can be correlated to disease.
Then, further, the hand parts can be shown by the pendulum to act as witnesses for various organs of the body.

(5) Abrams used the human abdomen of a subject for recording disease processes, yet of course the abdomen is an anatomical structure which has no pictures on it.

The Holy Shroud of Turin shows, when photographed, the blood dripping from the nail holes in the hands and the scratches caused by the crown of thorns and yet it is a piece of linen too old to maintain such marks. The human eye can quickly cause small clouds to disappear but before this occurs a definite outline of a face of man or animal can often be seen.

I urge you then, never to forget double aspects—which are manifestations of the duality of the ultimate observer, who is so well known and yet so unknowable. There is an old prayer, which goes as follows :

> " Oh Worker of the universe, we would pray to thee to let the irresistible current of thy universal energy come like the impetuous South Wind of Spring. Let it come rushing over the vast field of the life of man. Let it bring the scent of many flowers, the murmurings of many woodlands. Let it make sweet and vocal the lifelessness of our dried-up souls. Let our newly awakened powers cry out for unlimited fulfilment in leaf and flower and fruit."

ARCHÆOLOGICAL DETECTION

BY MAJOR GENERAL J. SCOTT-ELLIOT

" It is an ill wind that blows nobody any good." My interest in archaeological dowsing dates from the Suez crisis when petrol was short and I was restricted to country near home.

There is much of archaeological interest in this county (Dumfriesshire) and after one early success at finding the unknown, I became interested in the possibilities and now this form of dowsing is my main preoccupation.

The first success was the finding of a Bronze/Iron Age hut circle. I claim no archaeological knowledge, but so it is described pending full investigation.

This settlement " came up " when map dowsing on the 6in. map of the fields close to the house. There appear to be four or more hut circles, but as yet only one has been proved by digging.

An enlargement to 36in. to the mile was made and on that I got sufficient to be reasonably sure of shape and some detail, including the outer edge, indications of an inner wall and what I thought was the entrance.

This stage also enabled me to eliminate water as a misleading possibility, either in runs or in field drains.

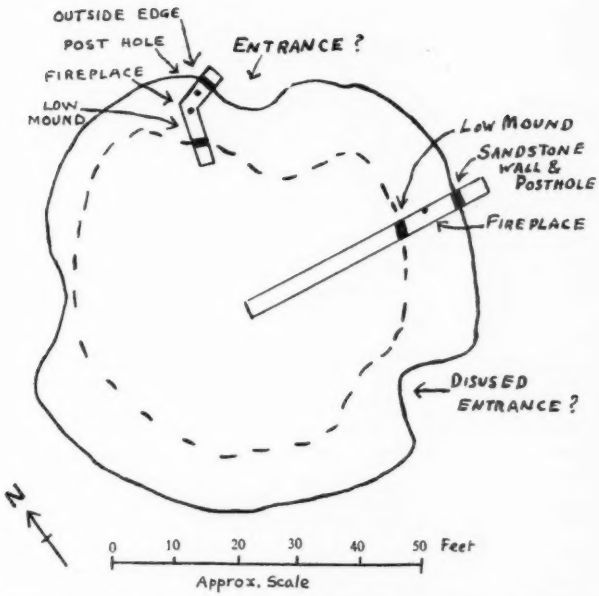
The next stage was to check by ground dowsing. The outside edge came up quite clearly and was duly marked by loose stones. The inner " wall " was not so clear ; this and the entrance were marked by turnips, of which there were considerable numbers lying around. I did not at that stage know much about the technique as will be seen ! Fortunately I did survey in the outlines on a sketch of the field.

It took me a little time to get anyone interested in my " find," particularly as there was no visible proof. With the eye of faith it was just possible to see a slight mound, but there are many such in those fields and it is an unlikely place in which to find a hut circle.

Eventually my good friend the curator of the museum, who had always been interested in my dowsing efforts, and a professor who was staying in the village, agreed to prove my " find " by digging, and two days were set aside.

The afternoon before the dig was to start, the farmer chain-harrowed the field and all my marker stones and turnips were rolled away ! So the survey came into its own and this time I re-marked with pegs.

It had been decided that we should dig a radius trench from the centre to three feet outside the outer edge, a distance of 39ft. This I marked off and digging began. But by the time we stopped for the day there was no definite proof of a " man-made " site—and I shall never forget the gloom of that evening.



Next day, however, proof came quickly. The outside edge turned up under my peg, as also did the inner " wall." A number of fireplaces, post holes, and other signs of human habitation, were found at two levels, one at 1ft. 6in. and one at 2ft. 9in.

Later we also cut a short trench across where I anticipated the edge of the entrance would be. This was successful in that the outer edge of the site and the inner wall appeared where expected and under the pegs. Here also we found a post hole and a fireplace.

At the moment the technique used is a development from this first successful result—map dowse, ground dowse to check and mark, then dig to prove. One of the better thrills is the moment when " man-made " things begin to appear in the dig, under the peg, on a site previously unknown.

Field drains can be most misleading, particularly the ancient type which are simply a narrow ditch half full of stones. From these and other misleaders I have learnt not to rely on the map dowse without a check. The other day I was trying to map dowse what I thought was a Roman road. Off it I was led to a very nice little rectangle on a ridge, just the shape of a Roman enclosure. A few days later I went to check and found that I was correct as to size and shape and place, but the interpretation was at fault, it was a filter bed for a local water supply, and dry at that !

SOME ECOLOGICAL AND GEOLOGICAL HEALTH FACTORS

A lecture delivered to the Society on May 14th, 1958

BY DR. A. M. JANSER

Mr. President, Ladies and Gentlemen,

The object of my lecture to-day is to consider the relationship between our physical environment and ourselves. It must be said that the universe is still largely mysterious to us. Science has developed to an amazing extent in the last 100 years or so. We have explored the mysteries of the universe, we have studied man and his nature, but what we have perhaps least studied, what is most neglected, is the relationship between man and his environment, the influence which the physical world around us exerts upon us. This is a science which has not yet been created, which has not got a name. My endeavour to-day is to try and give a few pointers in this direction.

I cannot attempt to do more than lay a few foundations, particularly those dealing with the more obscure and less well-known facts as they affect our health, our well being and our lives. We all know, and it is plainly evident, that our physical environment exercises a very potent and powerful influence upon us, but of what this influence is, apart from the plain and ordinary facts of heat and cold, sunshine and rain, and the like, we know almost nothing.

Now let me give a simple sub-division of our physical environment. First of all we have the ground on which we stand, walk and live, the rocks, the earth and all that is called the Lithosphere. Then we have the water, the seas, lakes, rivers, ground-water and wells which we summarise under the title Hydrosphere. Further we have the air we breathe and move in, the Atmosphere. Finally, we have cosmic space through which the earth and the solar system moves, in which there are other celestial bodies, meteorites, cosmic dust, radiation and possibly other unknown influences.

Now let me start to talk about cosmic space. Its influence on us is a matter of very ancient knowledge. In olden days, priests in the temples studied the course of the stars for many centuries, and they were able to recognise that there was a relationship between human fates, human destiny, and the movement of celestial bodies. This relationship they tried to establish in some kind of empirical form and thus became the founders of the practice of astrology. Astrology is a queer mixture of empirical working fact and a large number of completely unwarranted assumptions, but it certainly constitutes definite recognition of the fact that there seems to be some relation between the skies, the cosmic vastnesses and our human lives. Later on it

was observed that the moon has very powerful effects on us. We know the effect of the moon on women's lives, on insanity, on plant growth and crops, and many other rather subtle influences which have in latter years been the subject of much painstaking study of which I feel we cannot talk to-night. In the course of the last eighty years, sun spots have received growing and increasing attention. It was discovered that sun spots occurred in a rhythm of eleven years, alternating from minimum to maximum, and some research workers, notably an American, Douglass, has given the matter much attention. He has shown that human activities of the most variegated kind coincide with the activity of the sun spots. Douglass told for instance, that plotting very carefully the number of building contracts, placed for execution with American builders or architects over a period of fifty years, coincided to the utmost details with a graph depicting the variation of sun spot activity over the same period of time. Here is an example of some kind of cosmic happening on the sun which profoundly influences our lives.

In the last twenty years, cosmic rays have received great attention. They are radiations of tremendous energy and penetrating power. It is surmised that they are the cause of our ageing. Our flesh ages because of the constant bombardment of those potent cosmic rays. It has also been pointed out that cosmic rays affect the germ plasma of our reproductive organs, causing mutation. That means that new varieties of animals, plants and humans, occur and arise through an agency which seems to have nothing to do with Darwin's theory of evolution. Finally, some people make cosmic rays responsible for cancer. In the last ten or so years, finally it has been found that the space through which we move is not entirely empty, not a total vacuum, but rather what we might term an electronic vacuum, a condition in which electronic discharge effects and the like occur, and that these effects may also influence us in a manner which is not understood at present. All these factors taken together may give rise to a new science for which I suggest the term Cosmo-Ecology, the influence of cosmic happenings and occurrences on our lives.

There is one more point I want to mention, that is, the interesting possibility of C.T. matter occurring at occasions in our regions of the galaxy. C.T. stands for "counter-terrene" and it means matter in which the nucleus is negative and the electrons spinning around it have a positive charge. If a lump of C.T. matter meets a lump of ordinary matter, of which, for example, the air in our bodies is composed, there is a tremendous explosion with the total liberation of energy. We can visualise that if two pinheads of opposite matter were to meet head-on, the ensuing explosion would exceed many thousands of times that of the most powerful H-bomb our ingenuity can devise. There are meteoric craters, one in Siberia, one in Arizona ; they are huge, their size

indicates an impact of tremendous force of destruction, yet on digging and searching, not a splinter, not a fragment of the bolide or meteorite which must have caused such a tremendous impact could be found. We can only assume that these were perhaps very small meteorites but formed of C.T. matter which caused such havoc, such destruction. We do not know whether the release, the total release of energy by this collision of matter and counter matter would not give rise to some kind of force or radiation which may lastingly influence all life on earth, human, animal and vegetable. We do not know, but we do know that there are forces locked inside the nucleus of the atom which are not of an electromagnetic nature, and are even now being studied assiduously by our nuclear physicists.

Now, let me consider the air ; here we relatively know quite a lot, but our knowledge is not as profound as desirable, particularly when it comes to those subtle effects on our well-being and our health and illness which we are discussing. There are two sciences which deal with air, the one is meteorology, the other is climatology. In a few practical ways we know, of course, there are places with good air and places with bad air. We know that the seaside and the mountains have good air. People go there for their holidays and for their recuperation. We know country air, generally speaking, is better than town air, but this may be due simply to the absence of smog, fumes, dust, etc., which we find concentrated in and around big towns. We know that marshes, rivers and low lying regions are very unhealthy, but beyond that we know rather little ; we are aware for instance that some seaside resorts are known to be bracing, and others to be relaxing. Some country spots, although lovely, are rather indifferent as regards health, others are less lovely but renowned for their air. How is it that in Austria, in a certain valley there is a wonderful fragrance from the trees, from all the plants that grow there, whereas, in a quite similar valley, say in Switzerland, there is not a trace of it, the air is very nice but there is none of that intense fragrance which seems to penetrate your whole being, and, after a stay of some weeks, leaves you refreshed and invigorated. Some people are very sensitive to overcast skies and bad weather. We know from studies which ventilating engineers have carried out that positive ionisation is relaxing and negative ionisation is bracing, but we cannot assert for sure that this is a generally valid fact.

Let us turn to water. All life came from water. Our bodies consist very largely of water, more than three quarters of it, and we need several pints of water a day to keep alive. The body responds in different ways to water, and it is worth remembering that the origin of dowsing, water divining, is based upon curious sensitivity of the body to respond to water by a reflex action which could be made visible either by the divining rod or by a

pendulum. A year ago I had the pleasure of addressing this meeting in speaking about spa waters and commenting upon the very remarkable fact that spa waters embody in themselves a healing power for disease which cannot be traced to any known origin. Neither the chemical constitution, nor the radio-activity some of them display, nor any physical chemical mechanism of ionisation or supercharging, including any imaginable homoeopathic mechanism can account for the impressive healing power. There is no instrument which will indicate any difference between a spa water and an ordinary kind of water of similar analysis. The only way to approach this problem was by a group effort of dowsing experiments and we did establish the interesting fact that the effect was of a fleeting nature, which means that the waters had to be taken afresh where they occurred naturally and where they sprang from the ground. If the water is left standing a day or two its potency, its healing power are gone. No good trying to save money by having a spa cure at home, or by buying the bottled water ; you have got to go there to have the benefit and the advantage of that unknown force which will rid your body of its affliction right on the spot. We could, moreover, ascertain the fact that spa water changes the whole tone of one's system, and also induces that type of neuro-muscular effect which is typical of the dowsing reflex and which seems to be more or less the basis of the cure. Possibly, if the body is changed in its tone, nature can now get to work, the deadlock is broken. There are other waters, which are not spa waters, which have been found for one reason or another to have certain pronounced or prolonged effects on our systems. These wells are very often associated with some sacred concept and they are called Holy wells. I have a book before me entitled *The Legendary Lore of Holy Wells in England* by Robert Charles Hope, published 1893. We learn how very ancient well worship was. How often people associated nature spirits with those wells. Christian worship has also associated those wells with saints. We also know of holy rivers, the sacred river of Jordan, the river Ganges in India, or to go nearer home, for centuries the Rhone has had sacred associations with the German people.

Now I must mention the well which was artificially produced only 100 years ago, the healing well of Lourdes. There was a girl in 1858 who had a vision of the Virgin who commanded her to dig the ground at her feet with her bare hands, and as she dug water came out, that water had healing powers. I have been to Lourdes, I tried to ascertain whether something could be found out. The very remarkable fact was communicated to me that this water, filling a pool in which people are immersed, is part of the healing ceremony. It is simply teeming with germs as there are people with running sores who are being immersed in it, who may be followed by somebody who has got some internal

disease, but possibly some scratches in the skin, yet no infection occurs. These germs are unable to reproduce, unable to infect, so we have at least got one solid and concrete factor. There is something in Lourdes water which will allow germs to live, but will not allow them to do harm.

In complete contrast I would like to mention a well near the city of Salzburg in Austria which is poisonous ; people drinking of it may become very ill, may even die, and yet, on analysis the water is found to be of exceptional purity, therefore again we are dealing with another manifestation of this kind of unknown force which may impart both good or bad properties to water. We know also, that we can change water. The homoeopathist is doing it, we know that priests are doing it when they bless water and turn it into holy water ; what kind of reaction that is, is hard to tell, but we do know that it works sometimes, only to ascertain this fact becomes a very difficult matter.

Now at last we are turning to the question of the ground. This is really the main point of my lecture. The original title of this lecture was to have been " Geology and Health," but then it was decided to survey all the factors of physical nature as they are liable to influence us in that subtle fashion which so far defies all possibilities of coming to grips with it by the accustomed methods of analytical science.

When we try to establish the relationship between health, disease, and the ground on which we walk and on which we dwell, we find that we are in a very difficult position. First of all, the study of these effects is rendered difficult because the previous effects, those of space, air and water, may interfere and confuse the picture. Secondly, there is no such unified effect as with the more uniform elements. On the whole, space is uniform, water is uniform, and air is very uniform, but the solid earth shows an amazing variety of shape and constitution. We have soil and mud, we have hard glinting igneous rocks, we have soft sandstone, we have the artificial footing below us in the form of city pavements, and the floors inside buildings and so on. All this confusing variety must somehow be brought into a unified system, and studied from all angles. We may be influenced by such direct emanations of the ground which we postulate as presumably existing and we may be influenced indirectly by eating the produce which grows on that ground and thus carries its effect indirectly into us. Such an effect may be changed by the fact that more and more do we rely on imported foodstuffs which bring the effect of strange soils from overseas into our systems. All these things must be accounted for somehow. It is hard even to know how to begin to cope with it. So, let me give you in the way of an introductory example an attempt to connect the distribution of certain diseases with the structure and constitution of a certain locality.

Once when I worked in Paris on research I did a lot of unconnected reading and so came across three completely unrelated charts of France; the one was a sketch geological map which gave just the boundary lines of the main geological formations of France in somewhat exaggerated fashion, so that you saw at a glance what were the main geological strata and formations of France. The second map showed the distribution of blood groups in France, the third the distribution of cancer. Now I must stress again, these three maps and the papers which they illustrated had nothing to do with each other, they were published in different journals at different times, there was no cross reference except for the prodigious fact that I happened to see them, all three, within a short period of time. Now the similarity of those lines struck me most forcibly. I was unhappily unable to follow the matter further because just at that juncture I was completing a paper, but there is no doubt about it, there is some co-relation; how far this co-relation goes would need a lot of further study. There is a publication in H.M. Stationery Office, I think Dr. Pyke is the author, which shows the distribution of certain forms of cancer, I believe it's cancer of the mouth, tongue and throat, over England and Wales, and what strikes one most forcibly is the super-concentration of this form of cancer on the West Coast of Wales and those Welsh counties which are bordering on the Irish sea. Why this should be so is quite obscure.

Then I want to mention the work of a man who most of us probably know, Dr. Ash, who has studied the relationship between the radio-activity of the soil and cancer. Now radio-activity is something very tangible. A Geiger counter, a Wilson cloud chamber, and various other instruments, even a simple electroscope will betray its presence. We do know that radio-activity can be a cause of, cancer, therefore even if the radio-activity of a certain locality be very weak, by living there year in and year out, the cumulative effects of it may still be a causative factor in the occurrence of cancer. It is remarkable that Ash's very painstaking, detailed and protracted work failed to give any conclusive evidence for the coincidence of cancer with radio-activity of the soil. There seem to be some obscure limits and pointers, but nothing that could definitely be co-related. We cannot say, as we do in the case of smoking and lung cancer that those people who smoke a lot are more liable to get lung cancer than those who smoke very little or not at all. Nothing like that. So we haven't got very far.

I tried to obtain data on other diseases and their localised distribution, but my efforts to contact centres of medical research have not met with much success. It does not seem that these questions have received the attention they deserve in our view. So I have to give you a few random examples out of my experience. Just by living, going on living, talking to people and listening to

their troubles in an analytical spirit, you sometimes learn quite a lot. I give you the example of a family who lived in Middlesex; their children were ailing and nothing could be done about it. One day the father got a job in Liverpool, they moved there and the children soon were completely well. One case means nothing, it proves nothing ; anything could be the cause; most likely the cause was that the children found a more congenial schoolmaster and were happier and stopped ailing ; it could be just that, though a number of similar cases have since come to my notice. Then there is an eminent doctor in London whom I will not embarrass by quoting his name, who had a young girl patient who suffered from an inoperable form of cancer. He had his diagnosis confirmed and there was not the slightest doubt that the girl had not much longer to live. He felt distressed and embarrassed, and out of his embarrassment he told the girl : " Go home to your native Somerset, live in your native village, live simply, and eat nothing but the produce of the soil of your immediate locality." He thought, good heavens, what can I do with the poor thing, good riddance more or less, feeling rather shamefaced, but what is a poor doctor to do ? Five years later the girl walked into his consulting room. When he heard from his receptionist that she was outside he thought that it could only be somebody who happened to have the same name. The girl walked in and she was well, and she said " Doctor, I owe you my life," etc., you can imagine and picture the scene.

For a time I was in contact with doctors who did research on asthma, and in the course of our conversation the interesting fact emerged that many asthma patients who could not be desensitised by any means at our command, became completely well, just by moving somewhere else. There was the case of a man who lived in Peckham Rye suffering from a severe form of asthma ; he went to live in Walthamstow and he was well. These doctors had numbers of such cases. Is it possible that the ground of Peckham Rye is bad for people who have a tendency towards asthma, and that the ground in Walthamstow is good, or is it perhaps, that there are just as many asthma sufferers in Walthamstow as in Peckham Rye ? It is difficult to say ; therefore we must be careful never to draw definite conclusions too soon. It might be possible that if somebody who lives in Somerset in a village and has cancer, all that man needs is to go to London, live in the worst quarter and eat nothing but denaturalised and canned foods to get rid of his cancer ? How do we know ? Therefore I warn you against jumping to conclusions ; one is so tempted to do so ; when one gets a dozen, a score, and a hundred cases ; it may still be misleading. By all means make your provisional assumptions, say it seems to be like it, but be ready to kick your theories gladly out of the house as soon as they are even slightly shaken. That is the spirit of the true scientist.

Now for a change, let's talk of perfectly healthy persons, not always of disease. Very healthy persons may tell you that living where they do, be it Brussels or Islington, they had never felt really energetic and that when they changed their domicile, say from Bristol to Cardiff, or from Nottingham to Birmingham, or from Islington to Baker Street, they found themselves well, full of vim and energy and *joie de vivre*. There are masses of such scattered evidence and it forms a fairly unified picture. You may feel well in one locality, and you may feel less than well in another locality. I will quote the two cases of two friends of mine who both went to Toronto in Canada, the one came back after eighteen months although he had a brilliant job and whatever one could desire. He said " somehow that place was like a wet blanket to me." It could be psychological, but on close questioning it seemed rather like being something physical, the place sort of loaded him up with extra weight. Contrariwise, another friend of mine went to Canada, also to the same place, Toronto, came back three years later just on a visit and said " I'm a new man since I went to Canada, and twice as vital." So, apparently, healthy people are also influenced. There is something like a consensus of opinion, that people who have been to Mexico, that is the high plateau of Mexico, all report on feeling a peculiar kind of lightness, they feel somehow lighter, as if the drag of gravity on their bodies was less, as if they had been imbued with a kind of buoyancy. What is it in Mexico that makes people more buoyant, I don't know ; anyway there is something like a consensus of opinion here. Oddly enough the same thing has been told me by people who went to Israel and reported that of the city of Jerusalem. Now speaking of Israel, I think I ought to mention the very remarkable fact which I have read many times and heard reported verbally by people that babies are born fair in Israel, although the Jews are not a fair race at all. Very queer. It goes so far that a town in the toe of Italy inhabited by Gentile Southern Italians who adopted the Jewish faith and according to reports were persecuted by Italian ecclesiastical and secular authorities, finally managed to go to Israel ; they are of course, not Jews by race. They are Italians ; their babies too were born fair. It must be something in that soil which influences the germ plasma, some queer effect. Significant perhaps if we could only grasp the significance. So we try to find out by interviewing hundreds of people, asking them what kind of effect a stay in a locality has on them. People answer usually, " Well I never thought of this at all, now let me think " ; and then as they think it comes back to them, they can compare the background of their experience at their holiday resort with the background of experience at their homes, and they give me four kinds of answers, fairly evenly spread. Some say (1) stimulated, firm, energetic, (2) calm and relaxed, (3) restless and nervy, (4)

oppressed, tense, downcast. Interesting : there are four sharply defined groups of effect of your surroundings on you. I would like to ask my audience to pay attention to these facts and perhaps write in if you have anything to offer or to suggest. This research work of which these observations are merely a first indication and report should be continued, and anybody who cares to collaborate would earn my gratitude.

Now, I must again warn of pitfalls. There are many of them. These effects which we study and which we here describe could be due to several factors. They could be purely psychological. It could mean that they are caused by the biological riddance of the poison in question. Moreover, everybody is subject to natural rhythm. There is a short rhythm of twenty-three or twenty-eight days, there are seven-year rhythms, and there are some rhythms in between. These first two are the best-known ones. Now this means that you run through a period of lessened vitality and lowered moods which is followed by heightened tonus. If that period coincides with your stay away from home, of course, the results are completely falsified. Furthermore, there are also other fortuitous factors, good news, bad news, depressing and cheering news, and then the probable fluctuations of the natural phenomena which are the subject of this study. So, we are discovering very quickly that we have broached a subject of infinite complexity, where only rigid adherence to strictly scientific methods of elimination might give us anything at all.

But then we are coming to certain specific localities where effects are so sharply marked and definite that there can be no question of anything but that it is an effect associated with the locality itself. I am speaking of the so-called "islands of immunity." There are certain sharply-defined areas all over the world where certain diseases do not occur. Moreover, where a sufferer of such disease, if he takes up his abode in that area, will very quickly rid himself of that disease, only on leaving that area to revert again. A doctor, Eugene Paine, probably an American, who wrote an article on those islands of immunity, describes nine of those in South America. In Brazil, Bolivia, Ecuador, Peru, this is the region which he made the object of his remarkable study. He finds that one centre is free from heart and circulatory disease, another free from cancer, others free from malaria, hookworm, tooth decay and mental disease. Certainly the most noteworthy of them all, even if least important from a health point of view, is the centre confirming immunity from tooth decay. It seems fantastic that if you live in a certain village somewhere in Peru that your teeth will never decay. It means National Health would be completely bankrupt, in a country like that. No one would want false teeth, I don't know where that would lead to. Dr. Paine gives an example of a British engineer who was dying of high blood pressure. His

heart was very badly damaged and beyond remedy ; he went to a small place in Ecuador because he had been advised that it was restful. Dr. Paine went to see the patient and found him completely restored and his heart as good as new. Dr. Paine stresses in a similar fashion as I have done the warning from jumping to conclusions, etc., etc., and he also emphasises that he has tested, checked and re-checked his results before he went to publish them. Well, oddly enough, if you are a medical man it is a much more serious matter to publish discoveries you believe you have made, than if you are just a mere physicist, chemist, physiologist and the like.

I will now speak of a different effect of strictly localised nature, that of longevity. There is a certain, well-defined region where people live very long, where there are more centenarians living in a fine mountainous country than in the rest of the world together. It is hard to credit that people live very long when they live in Bulgaria, the eastern part of Yugoslavia, and in the Caucasus mountains. There is something in that mountain range which seemingly delays the onset of old age.

Long before the war I was in correspondence with a man in Sofia, Bulgaria, who once invited me to come and see him. When I arrived there, I was met at the station by a man six foot tall with a snow-white beard reaching down halfway to his chest. He took my bag, just snatched it out of my hand. He walked in huge strides to my hotel and I just sort of, shall we say, skipped beside him. He was the picture of vigour and strength, and when I asked him his age he was eighty-five. He said " My family does not live particularly long, my father died at ninety-seven, my grandfather at ninety-five, we are not a long-lived family, as family long life goes in Bulgaria." Let me speak about a man whose name was Dzhugashvili and he was the lord and master of all Russia for a period of nearly thirty years. We know him under the assumed name of Stalin, the " Man of Steel." Now that man came from Georgia, where part of the Caucasus mountains are situated, so he knew all about centenarians and old people being as strong, vigorous and vital as a person of fifty with us, and he engaged the services of a Russian scientist of the name of Bogomoletz, which means " worshipper of God," and he asked this " worshipper of God " to investigate and help him to attain long life and eternal youth. Bogomoletz went into the Caucasus and discovered the interesting fact that in those very old people it was the connective tissue which was young, youthful ; that the organs seemed to be aged, not as aged as in hundred-year old people, rather like in people of sixty or seventy, but that it was the connective tissue which may be looked on as building stones of the body, fulfilling any specific organ function, which was as in people of twenty. So he obtained some of that tissue, how, we can only shudder to think. He ground up the tissue

and extracted the serum from it, and he injected the same into Mr. Stalin, and one day we read in the papers that poor old Bogomoletz is dead ; we can only conjecture and surmise what happened to the poor scientist. We know what happened to Mr. Stalin, but the mystery why people live so long in the Caucasus, and in Bulgaria, is still unsolved. I have read learned articles in which French scientists tried to argue that Bulgarians live so long because they eat garlic. Well, Italians eat garlic too, yet they don't seem to live longer than most other people. Then they say " Eat yoghourt." Well, people in Bessarabia, Ukraine and adjacent parts also eat huge amounts of yoghourt, but they don't live very long beyond what we call normal, three score years and ten. So it is something else.

We need two things, firstly we need dowsers and secondly we need ways and means to get behind the Iron Curtain to carry out those studies. Perhaps the secret of eternal youth lies buried in the rocks of these mountains, and one day perhaps, when the world is able to follow its studies without lack and hindrance, we may know.

I will not conclude this lecture without mentioning some simple facts of life, which are that the country seems to make its people. The English are different from the French, from the Germans. Now do not say " Ah, different race." Not necessarily. The English actually are Germans. At any rate they were Germans when they invaded Britain but they settled here and became English. They are different from the Germans now, the country, its soil made them so, what else ? Take America. I think it is true to say that if you meet a Yank you know him as such. I mean there is no mistake about a Yank. They are typical of their kind. They seem to have racial characteristics typical of the American, yet originally they came from all parts of Europe. Like most of us, I too have met Americans. If you had asked me what is his ancestry I couldn't have told you. I am thinking of the " invasion " of London by our American friends and Allies in 1942-43 when I talked to scores of those boys. It was a most amusing experience. So I meet a Yank who just looks like nothing but a Yank, and I ask him " What is your family origin?" One will say " Sicilian," that is Southern Italian, others " English," " Serbian," or " Russian Jewish." I enquire and find out that there was in many cases no family mixing to speak of. What kind of force is it which turns a Russian Jew, a Sicilian or Neapolitan Italian or an Englishman, say whose family came from somewhere in the West Country, into a typical Yank showing no trace of his Russian, Italian or English origin. It must be in the soil, in the rocks, in the very ground of the New World. We must know about these forces, because the human spirit is questing, inquiring after knowledge, how to master our environment. How can we learn to master ourselves if we have no conception of the

forces which more or less influence us? How can we tackle this question? By no other means, as far as we can say to-day, than by dowsing. These forces cannot be measured by an instrument —they cannot be weighed, no electrical measuring instrument, test tube, nor radiologist's Geiger counter will show these forces, yet they mould us, they make us well, they make us ill, they turn us into Englishmen and into Yanks. They master us. How can we learn to master ourselves, before we have learnt to master the forces which control and rule us. But you might say "Well, if I have an electrometer I know what I am seeing, but now can I rely on a dowser or on this silly twiddling twig. Can I believe the dowser if he tells me this or that?" The answer is "Yes." Modern science has developed techniques to handle precisely this, viz., operational techniques which are usefully employed in psychophysics and allied sciences. There is no reason why they shouldn't be applied to dowsing and why dowsing shouldn't be elevated to the status of respectable science taught at universities —and I think I would like to conclude on this note.

POSSIBLE DEVELOPMENT OF THE LAKHOWSKY CIRCUIT

BY THE REV. A. J. K. GLAZEWSKI, L.TH.

In a long series of communications to the Paris Academy of Science[1], as well as in papers published in different scientific periodicals[2] and in popular books, Mr. G. Lakhowsky announced several of his important findings. Two of them at least are of solid and, beyond doubt, of scientific value. The first concerns the theory that every biological living cell can be compared to an electromagnetic oscillating circuit, and emits electromagnetic radiation in the range of the infra-red spectrum. The much-discussed discovery of the mitogenetic radiation by A. Gourvitsch[3] seems to indicate that the range of biological radiation extends into the ultra-violet. Anybody who would like to study these facts should refer to the respective literature.

The second fact discovered by Lakhowsky concerns his experiments with plants[4]. On the basis of his previous theory that every living cell is an electromagnetic circuit, emitting a radiation of the same nature, the following experiments were performed. A certain number of geraniums were inoculated with *bacterium tumefaciens* from malignant tumours. In a month's time, when the tumour was well developed and the growth of the plant was seriously affected, some of the affected plants were left as controls, whilst others were encircled by a copper wire, both ends of which were fixed into an ebonite (dielectric) support forming an open circuit, the wire being upheld around the plant. The diameter of this circle was about 30 cm. After a period of about eight

weeks the malignant tumours on the plants surrounded by wires, dried out and fell off, but the plants themselves developed and grew quite healthily. On the other hand all the control plants were killed by the tumour. These experiments are repeatable and are of genuine scientific value.

Since the appearance of publications by Lakhowsky, a great deal of research has been done in this field, especially in the practical application of these circuits to the treatment of cancer, as well as other human illnesses. Clinical reports of many well-known medical doctors and professors, such as Prof. Sordello Attilj, Director of the Radiological Department of the San Spirito Hospital in Sassia in Rome, Prof. Guido Cremonese of the Medical Faculty of Rome, Dr. Raul Araujo of the Prophylactic Institute of Uruguay and many others[5] show that many positive results have been achieved in curing human diseases. However, in spite of these researches no further development was achieved, and research has practically died out. The reason for this seems to me to lie in Lakhowsky's theory.

Curiously enough he tried to explain these undoubtedly astonishing results by a " mysterious " interference of cosmic radiation by these circuits[6]. Although I am full of respect for Lakhowsky's knowledge and discoveries, nonetheless his theoretical explanation seems to be at least precarious. This is probably due to the fact that at the time Lakhowsky performed his experiments cosmic radiation was a comparatively new phenomenon and imperfectly understood. However, in the light of modern knowledge his theory is now untenable. During many years of study, I have tried to find a more simple and obvious explanation based on sound scientific principles. The task was not easy, and it took a considerable time before I could reach a definite conclusion. If a scientific theory could be produced, it is obvious that further development would be possible.

Before we can give a reasonable explanation of the effects of the so-called Lakhowsky circuit let us first recall certain now well-known scientific facts.

1. We know that the space around the terrestial globe is filled with Hertzian waves, penetrating our houses and ourselves. Our bodies are bathed in this sea of radiation.

2. It is a well-known fact in biology and medicine that these Hertzian waves may have a strong influence on the living organism[7]. Short-wave treatment is an established therapy. Quite lately it has been found that the range of very long wireless waves has a great bearing on human health. As these waves are more or less intensified by different meteorological conditions, the well being of the sick depends greatly on these meteorological factors.[8] This branch of science is gaining ground, especially in Germany, and is called meteorological medicine. It has been found that the effect is due to the changes in intensity as well as direction

of the long waves propagated in the atmosphere. The so-called meteorological fronts also have a bearing on it.[9]

3. Another established fact in wireless telegraphy is that in order to get a good reception of certain lengths of the Hertzian waves, the length of the aerial has to bear a definite proportion to the wavelength (full, half or a quarter). The so-called tuning by variable condensers is a substitute for the lengthening or shortening of the aerial itself. It is much more practical to change the variable condenser than to change the length of the aerial. The direction of the aerial as well as the distances between wires (if the aerial consists of several) and from the ground, must also be taken into account. In other words it is a fact that shape, length, relative direction and proportions are very important factors in the functioning of proper emission or reception. This branch of science is now highly developed and specialised.[10]

4. A further factor which has been scientifically established lately is that alternating electric currents in every wire produce not only a molecular agitation known as heat but also a slight "sonic" field. This is due to the mechanical agitation of molecules in the wire which, owing to the alternating current, is polarised in a certain direction. A deeper consideration of what is called Poynting's theorem states this clearly. By the word "sonic" is not meant only the audible range of this vibration, but also the super and ultra sounds, such as vibrations below the audible range. Any periodical mechanical polarised motion is here included.[11]

5. Finally we must recall that in recent years it has been definitely proved that the human body is full of sounds of various kinds. Theoretically this was discussed by the present writer in a paper published in 1952,[12] and experimentally—quite independently of this theoretical analysis—Prof. Rohracher, of the Vienna Institute of Psychology, was able to register these sounds on a variety of instruments, all of which gave the same results.[13] Another proof of the "music" of plants has been given by Prof. Horchen, of Cologne in Germany, in 1954. The recording of such "music" can easily be picked up by a tape recorder with different speed adjustments in the following way. An ordinary gramophone pick-up or any of the other detectors described by Prof. Rohracher should be connected to an amplifier and to a tape or wire recorder. This, during the recording, should be put in very slow motion so as to produce the smallest possible spacing between separate vibrations on the tape. This is necessary, for the human microvibration of mechanical nature is of a very low frequency (8-18 c./sec according to Prof. Rohracher), and is well below the audible range. When, however, we wish to reproduce these vibrations for an audience, we should run the tape or wire recorder at high speed. By this method the frequencies will be stepped up considerably and the sound will then be easily heard by the human

ear. The same applies to encephalograms and cardiograms. We should then be able to appreciate audibly the " music " of the human being—probably quite different in different illnesses or states of health.

6. There is yet one point which it may be worthwhile to raise, namely that the present writer has found that there is a certain logarithmic relation between electromagnetic and mechanical vibrations, as regards wavelength. A report, however, has not yet been published; in it this point is mentioned for the first time. (It was, however, discussed in private, with a scientist some years ago (1949)).

From the facts given in Nos. 1-6 we can now draw some conclusions as to the possible work done by the so-called Lakhowsky circuits.

Let us first deal with the experiments with plants which Lakhowsky reported to the Paris Academy of Science. What happens when a plant is encircled by a wire ? First of all such a wire being insulated from the earth by the dielectric stick, and forming an open circuit (the ends of the wire must not touch one another) will resonate to a certain wavelength present in the atmosphere and by re-emitting this radiation will enhance the field around the plant so that the plant is in the centre of the oscillating frequency. (Regarded from a different point of view, we may also say that the wire will absorb the radiation *emitted by the plant* and re-emit it on the principle of resonance, re-enforcing thus the field of vibration of the plant).

Secondly it will produce a faint " sonic " field (see point 4) of a mechanical nature with all its harmonics as well. This vibration will also penetrate the plant itself.

Thirdly interference patterns and masking effects with unnecessary oscillations and vibrations will be emitted, thus eliminating their effects, enhancing at the same time resonant frequencies. We may say that the plant will be immersed by this method in a certain " climate " (or wave pattern) of electromagnetic and mechanical vibrations both related to one another and re-enforcing themselves accordingly. Such " climate " is found to have a definite bearing on the growth of the plant which has its own resonant frequencies of a mechanical nature (see point 5) and in all probability of electromagnetic nature as well. That plants are extremely sensitive to these radiations is obvious from considerations of photosynthesis and temperature (infra-red spectrum). Light is necessary for photosynthesis and the longer radiation controls temperature, both of these being necessary for its life. The influence of short waves on plants is also known. All this is due to the absorption function in the plant itself, where respective chemical compounds respond to their respective frequencies and wavelengths.[14]

What happens in the plant itself? The absorption of certain

vibrations in the stem, leaf, roots, etc., is enhanced, whereas harmful vibration is damped or entirely stopped. In this way natural vibrations and free oscillations are encouraged and the health of the plant completely guarded against any noxious frequencies. On the other hand the plant can be surrounded, through the length, shape and nature of the oscillating circuit, by a field at complete dissonance with its natural frequencies, so that a forced vibration is induced in the plant, killing or to a great extent hampering its development. Such an explanation of Lakhowsky's " circuits " seems to be so obvious, based as it is on sound scientific facts, that treatment by the " circuits " can no longer be considered irrational.

In the light of these conceptions the former method of using the Lakhowsky circuit in the treatment of diseases in the human being requires modification. If Lakhowsky's own theory is accepted then a wire of any length should perform the work of interfering with cosmic radiation. However, if the theory put forward in this paper is correct then in each particular case the required length of the wire should be carefully measured from a definite point and should then be worn by the patient in a definite place. Let us explain this more clearly. Short-wave therapy in medicine is a well-established form of treatment in daily use, but the length as well as the intensity of the field of the Hertzian waves is empirical. There is, however, no doubt that each organ having its own vibratory rate would require a different wave-length with its various harmonics and wave interference patterns, or one may say different wave " climate," and this should be found exactly in each individual case for any particular illness, as every illness takes its own particular form in every human being. For these reasons I have devised a different method of procedure.

This method consists of :

1. Measuring the length of the wire from the affected organ onwards. One end of the wire touches the spot where the root of the illness is located, according to the diagnosis, and at the first nodal point the wire is cut off. In the absence of any other instruments the measurement can be done by radiesthetic means (pendulum). It should be borne in mind that the wire must be in an insulating cover. Plastic is the best.

2. The wire must be worn in the vicinity of this affected place, e.g., in case of heart disease it should be worn around the chest or it may fall down from both sides of the neck. If the head is affected it should be wound round the head and so forth.

3. In order that the circuit may remain open, the wire must be insulated from contact with the body, and therefore it *must* be enclosed in a plastic or other insulation. Further, the metallic ends must not be in contact.

What is achieved by such a method ? First of all the wire cut to this length will absorb and re-emit only this particular wave-

length which, thanks to the measured length is exactly that required by the organ. Secondly the patient wearing such a wire day and night will be under its influence, not only during a short period of time as practiced now in short-wave therapy (daily or weekly treatment) but will be under its constant influence as long as the wire is worn. Furthermore in present short-wave therapy not only is the wavelength improvised, but so also is the intensity of the applied field, whereas in this new method not only do we get the resonance effect of the length of the wave but also the "resonance" of its intensity (this field is extremely weak, but constant and proportional to the requirements of the body). It is obvious then that the therapeutic results should be much better. In practice it has been found that after a few days of wearing the wire a new measurement shows that a different wavelength is required, and actually it is always a shorter one. Theoretically it is clear that the organ under treatment regenerates itself and in due course requires a different Hertzian wave. This is achieved by shortening the wire, for the simple reason that it then resonates, as is well known, to the different length of wave. Practice has also shown that if the wire is not cut, then not only does it not perform its therapeutic work, but in some cases it even hampers recovery, because it forces the organ to vibrate to the rate of the "climate" of the wire, and not to that which the already slowly regenerating organ needs. But when the wire has been cut and the "climate" readjusted to the requirements of the organism, in a comparatively short time pain is removed and the feeling of well being restored.

The writer is not a medical doctor and does not claim even to make judgments with any sort of authority. This is left to properly trained people. Here the matter is considered from the physicist's point of view, and many results in practice seem to support the theory. It is quite possible that a certain amount of autosuggestion or other psychological factors are present. However, it seems inadmissible to attribute all successes to such causes, the more so that the method has been arrived at by a process of logical reasoning, and in many cases patients have been restored to health in spite of their complete disbelief in it.

In the course of treatment, when the wire has become rather short in comparison with its original length, it is recommended that a double length of the wire be worn. Practice has revealed good results from this procedure. From wireless theory it is well known that the pattern and directions of radiation of an aerial cut to a $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, full wavelength and so on differ considerably. It was therefore thought that such differentiation may have a bearing on the therapeutic results. Practice revealed the correctness of this idea. In some cases the effect of the aerial was much too strong and the patient could wear it for only a few hours every day. Well, all this practical side the writer leaves entirely to professional medical men.

Bibliography

[1] See years 1926, 1927, 1928, 1929 of the *Comptes Rendus* Paris Acad.

[2] *Comptes Rendus Soc. Biol.* vol. 91, 629, 26th July, 1924.
Annales do l'Institut Pasteur 1924.
Revue do Pathologie Végétale et d'Entomologie Agricole 1924.
Radio Revue Nov. All articles and papers written by J. Margou and the last one by Lakhowsky himself.

[3] On this subject over 500 papers have been published. See, e.g., *Biological Effects of Radiation* edited by B. M. Duggar, prof. of plant physiology, pp. 945 ss. Publ. by McGraw Hill, New York. London 1936 vol. 2.

[4] *Comptes Rendus* Paris Acad. of Science, 15th Feb., 1926.

[5] Attilj, S. I Raggi Cosmici Nella Etiologia e Nella Cura delle Malatie. Atti VIII *Cong. Ital. di Radiologia Medica* p. 307, Firence, Maggio 1928.
For other reports see Dr. P. Rigaux: *Les Ondes Cosmiques et Les Circuits Oscillants d'après les Travaux de G. Lakhowsky.* Paris 1932; Ed. S.A.L.C. p. 19 ss.

[6] See the last item of point 5.
Also G. Lakhowsky *Comptes Rendus* of the Paris Acad. of Science 2nd April, 1928, and by the same author *Le Secret de la Vie Les Ondes Cosmiques et la Radiation Vitale.* 2nd ed. Paris Gautier-Villars p. 214.

[7] See, e.g., B. M. Duggar: *Biological Effects of Radiation* vol. I, p. 451 ss. chapter on Short Electric Waves Radiation in Biology. Ed. McGraw-Hill, New York, 1936.
D. E. Lee : *Action of Radiation on Living Cells*, C.U.P., 1946, and Literature quoted there on pp. 364-384.

[8] An extensive research in this field has been done in particular by Dr. Reiter, see, e.g., *Grenzgeb. der Medizin* 1, p. 233, 1948. *Berichte der Deutsch Bäderverband* 1949; *Medizin*, Meteorologische Hefte Nr. 9th, 1954. *Physikalisch-Bioklimatische Forschungstelle*, München. Other names may be quoted, such as Curry: *Bioklimatik*, 1946; De Rudder, *Grundriss der Meteorologie des Menschen*, 1952, and many others. Meteorological factors in medicine are now in Germany an established scientific branch of research. The atmospheric disturbances have been called by Reiter "J Disturbances." They are in two ranges. Range 1 comprises extra long waves from 10-50 Kcs. and Range II, from 4-12 Kcs. The change of the pH in the blood can be caused by the Hertzian waves (reduction), thus causing stimulation of the sympathetic nervous system. Curry calls this "meteorotropic change of the acid base equilibrium in blood," and is of the opinion that it may be the cause of meteoro-pathological effects.

[9] The influence of meteorology on radio wave propagation can be found in a concise way in *Meteorological Factors in Radio Wave Propagation*, Report of a conference held on 8th April, 1946, at the Royal Institution of London by the Physical Society and the Royal Meteorological Society.
See also D. E. Kerr *Propagation of Short Radio Waves*, McGraw Hill, New York, 1951, particularly chapters 2, 3, 7, 8. Detailed literature is quoted throughout the book.

[10] See, e.g., F. E. Terman *Radio Engineering*, McGraw Hill, New York, 1947, chapter on Antennae, p. 662-673.

[11] E. Ludin, Metal Wire Electrically Heated and Producing Sounds (in French) *Arch. des Sci. Phys. et Natur.*, I, IV, p. 383, 1922. See also F. Streinitz *Physicalische Zeitschr*, 16, p. 137, 1915, and A. Imhof, *Physic. Zeitschr*, 23, p. 26, 1922: J. C. Bose, *Comparative Electrophysiology*, Longmans Green, London, 1907, p. 6 at the bottom.

[12] A. Glazewski: *The Music of Crystals, Plants and Human Beings*, "Radio-Perception," X, 73, 1951.

[13] H. Rohracher: *Mechanische Mikroschwingungen des Menschlichen Körpers*, Urban u. Schwarzenberg, Wien, 1949.
Neue Untersuchungen Uber Biologischen Mikroschwingungen, Rohrer, Wien, 1952.

[14] See literature quoted in [3] above.

MINERAL DOWSING

A SECOND EXPERIMENT

BY EDMUND FANCOTT

In a previous article (*B.S.D.J.*, xiv, 99) I described an experiment in mineral dowsing carried out in co-operation with the late Kenneth Roberts and Henry Gross. The possibilities inherent in the result of this first experiment led to a second experiment on a more ambitious scale.

The rugged conditions of mineral exploration in Canada and the high cost of working in bush country suggested that the experiment should be considered as an intermediate test and that the odds should be weighted in favour of economy and success.

I had in my possession a government geological report of a region on the south shore of the St. Lawrence River about two hundred miles north-east of Quebec City. One of the maps included in the report gave indications of copper in five places within an area approximately fifty miles long along the coast line with a width of twelve miles inland. There were two small towns and several villages flanking the area, good roads surrounding, and a few moderately good roads crossing the area. At the western end a wedge of farming country cut into the region and at the eastern end the hills of the Gaspé Peninsula met the coast road.

As a first step a topographical map, one inch to a mile, was sent to Kennebunkport. Henry Gross dowsed this map for copper and sent it back with five locations which coincided remarkably with the copper indications on the geological map in my possession. In addition he gave the depth of the ore bodies and their dimensions. He also gave the tonnage in each deposit. Copper in the Gaspé range usually occurs in lenses and allowing for the variable shape of such lenses it was possible to make rough calculations from the dimensions given of the volume of the ore in each deposit and, with a rough estimate of the specific gravity of such ore, it was possible to calculate the tonnage and to compare the calculated tonnages with the tonnages given by Henry Gross. Allowing a reasonable give and take there was a remarkable correlation between the calculated tonnages and the tonnages given by Henry Gross except for one peculiar factor, a factor of ten. In each case if one of the dimensions had had one zero more or in other cases one zero less, the coincidence between the five calculated tonnages and the tonnages given by Henry Gross would have been nothing short of remarkable. The figures were re-checked and the allowances for variability of shape of the underground lenses reconsidered, but the coincidence was still as remarkable as before.

This curious, but consistent discrepancy, disturbed me at the time because it had psychic implications ; it had the flavour of a practical joke at our expense, but, if so, by what or whom ?

One area was already owned by a dormant mining company ; the total ore body had not been blocked out by drilling, but commercial percentages had been established. This seemed adequate proof of the map dowsing (this mine has since been re-activated), and it was decided to stake the other four areas and make drilling tests on locations picked by Henry Gross and to the depths specified by him. With moderate luck the funds available would have sufficed for a one-shot drill check of each location. With proof of success there would have been no difficulty about development money.

The season was midwinter, a time of year which has its own problems of deep snow and occasional sub-zero temperatures, but it is the best time for getting through rough bush by snowmobile (a car chassis with skis instead of front wheels and back wheels replaced by tractor treads, completely enclosed with a beetle-like body, and driven always in second gear or lower). Every season has its problems for diamond drillers, but, provided food and warm accommodation are within reasonable distance, the winter has the advantage of eliminating rain, mud, swamp, black fly and mosquitoes. Winter drilling is not a pastime for comfort-lovers, but then neither is summer drilling.

The first hole was drilled to the specified depth, just over seven hundred feet without mishap save for the usual water hose problem during very cold snaps. It hit nothing but quartzite, with no sign of copper mineralisation. As the drill rig was being dismantled for moving to Hole No. 2 one of the drillers drew my attention to the boulder that had been moved from the drill site before erecting the drill tripod. It was a highly mineralised piece of float, interesting, but of no significance, except as cocking a snook at our expense.

The experience at Hole No. 1 was disturbing, so, before setting up the drill on the site of Hole No. 2, Henry Gross came to check his map locations on the ground. Except for minor changes he confirmed his map findings on the sites of Hole Nos. 2 and 3. One of the interesting experiences of life is driving through rough bush roads in a snowmobile with a French-Canadian driver. The roads develop packed snow waves over which the driver drives with an entirely Gallic zest, bouncing from crest to trough to crest in a progress which is a series of violent bounces, ending only too often in a slithering off the hard snow, half overturned into deep soft snow. Bruises become unimportant as all hands dig under the runners to bring the snowmobile of its own weight on to a flat bed of snow again from which it groans, churns, carves its way on to the hard road bed again.

Hole No. 2 went down to about one thousand feet, again in hard quartzite. Quartzite is hard drilling, but the presence of quartzite did not discount the possibility of a mineralised lense at depth. We were, it must be remembered, specifically testing mineral dowsing. The daily footage was poor and the cost of drill bits high. The drilling was taking more time than we had estimated and small mishaps were running up the time of the drill on day rates which, under certain circumstances, replaced footage rates for drilling.

A certain amount of money had been allotted to drill four holes, one to each site, but it began to look as though the going would be close. The drill crew was good, but the men lived hard on the job and drank hard off duty. The tool-push was a red-headed Scot with a roving eye, roving feet and an insatiable thirst. The geologist on the job was a Scottish-Canadian, steady and thorough. The drilling was slow and frustrating. By the time Hole No. 2 had to be written off as a failure, the winter was running into March and a thaw set in with balmy winds under which most of the snow vanished. It began to look doubtful whether we should get to the third drill site before the ground thaw made movement of heavy equipment impossible for several weeks.

We rushed the dismantling of the rig and moved it to the coast road before mud could bog it down. That night the temperature dropped near zero and the weather report forecast a blizzard from the Gulf next morning. It was urgent to move along the forty miles of coast road, to the nearest town to No. 3 location, before the blizzard shut the roads. Without waiting for sleep the geologist began moving his convoy along the road and bargained with the local provincial snow plough to escort the convoy. It was a fortunate provision because the blizzard began in the night and cut down the pace of the convoy to a crawl. Visibility was almost zero and the roads were blocking so quickly that the pace of the snowplough set the pace of the convoy. Several road drifts were so long and deep that the convoy would have been snowed in but for the plough. The convoy got through shortly before it became impossible to move on the roads. Next morning it was a cold and beautiful sunny day but the town was hemmed in by road drifts twenty feet deep and beaten down, tight-packed by the gale force of the blizzard. The drill crew, having celebrated their victory of the night before too well, were in jail. The geologist found the snow ploughs on the main road unable to make more than a quarter of a mile per hour against the hard-packed drifts. He went back to town, bargained with the police chief for his men, hired two snowmobiles and trailer sleighs, loaded all his equipment on the sleighs and took off by compass direction over the drifts instead of through them. Luckily the third hole was in settled farming country. The hills were low, the field fences covered with snow, stream valleys difficult but navigable. Field drifts were like curled

waves carved in snow, but the snow was hard-packed and perfect for fast running. The convoy made the fifteen miles to the village near Hole No. 3 with only one overturn. The geologist rounded up crews of local men to dig a working road from the village to the drill site, a mile and a half away through snow six feet deep. The rig and shed were set up that day, another roadway carved to a stream for drilling water, and the crew returned to the village to fall into bed. That night the blizzard blew in again, having circled the Gulf, and in the morning the rig was buried and the road to the rig filled in. The local men dug the road out again that day. Time and money were in fine balance now and the move was costing far too much. But the job was done.

That night the blizzard, having circled again, blew in and obliterated the previous day's work. It began to look as though greater forces than we understood were playing against us, but this, of course, was against common sense.

The road and rig were cleared again and then a balmy wind came from the south, a severe thaw set in, and water and mud fouled the operation. No sooner had the drill begun to work than a very small part gave way, but it was not a part that could be obtained or made locally. It had to be brought from the manufacturer by a combination of long-distance telephoning, aeroplane and a car from Quebec. No sooner had it arrived and been set in the drill rig than the water pump failed. One minor mechanical mishap after another began to bedevil the hole, small things that meant long delays. Day rates ran through money and the spring thaw began seriously. A spring thaw with night frosts and warm-day suns can make a quagmire through which it is impossible to move a heavy rig out or supply trucks in. If a conscious spirit had been planning to defeat the final hole and the whole experiment, it could not have worked with greater nicety of timing. The crew worked splendidly for twelve hours a day, meeting every mishap with resource. The chill, mud and damp of spring were harder than the rigour of winter. Just before the final depth was reached a thin vein of mineralisation was greeted with excitement, but as the final depth was reached and passed, it became clear that this hole was also a failure. The rig was pulled out with hardly a day to spare before the roads were closed to heavy traffic during the thawing period, and on the final day an old prospector called on the geologist.

"Now, if you'd been the same distance west of the village instead of east, you'd have been on some claims I staked some years back. Plenty of outcropping there. Never did a thing with the claims ; price of copper was too low then."

By 1956 when copper prices were high the district became very active. But as for the experiment it was an expensive failure.

There was ample encouragement in the confirmation by map dowsing of the geological survey. It was the hope that dowsing

would indicate the main lodes or lenses of which the old geological surveys had discovered the outcroppings on the surface. It must be remembered that the experiment was a specific test of dowsing and map-dowsing to do this one thing, discover the heart of the mineral deposit and thus prove that the usual process of probing for a vein from the outcroppings, an expensive and often frustrating process, could be short-circuited by accurate dowsing.

I have stressed the curiosities; the factor of ten in checking Henry's dimensions and tonnages, the piece of float on the site of Hole 1, and the climatic mishaps and mechanical frustrations at Hole No. 3. I have stressed them because, by the time the experiment ended, I had a strong sense that " psychic " elements were involved, in spite of the counterbalance of common sense. A third experiment added some thoughts to this aspect of dowsing, and I hope to deal with it in a later article.

This failure should be compared with the failure of Henry Gross to dowse water at Eleuthera, as described in Kenneth Robert's book *The Seventh Sense*.

The unusual record of Henry Gross of success in water dowsing both by map and on location is based on work done for no monetary reward or at best a moderate and justifiable fee.

In the case of Eleuthera success would have launched his dowsing, in co-operation with the sponsor of the test, into a continent-wide, well-financed enterprise of a commercial nature. In the case of the copper experiment described in this article, success would have been followed by very substantial financial rewards.

Kenneth Roberts was very strongly against any suggestion of " psychic " influences, and it is true that, apart from a fluke of calculation in the tonnages of the copper, nothing occurred that could not have occurred in any normal mining operation.

I am convinced, however, from this experience and several subsequent ones and from the investigation of other dowsing ventures, that all factors should be recorded. It might become evident that there is a gradation in dowsing from the emerging scientific to the psychic or Huna. To understand such a gradation the study of dowsing failures is as important as the recording of successes.

Those who have read the book, *There is a River*, or the pocket-book version, *The Story of Edgar Cayce* by Thomas Sugrue, will remember how Edgar Cayce, with no knowledge of medicine, diagnosed under trance 30,000 cases, all carefully recorded, with a record of more than ninety per cent. accurate. Yet in the one case when he was persuaded to use his remarkable ability to find oil, the subsequent drilling and operation was a disastrous failure. One thing after another bedevilled the venture, ruining all concerned in the end.

To offset this there is the case of a Canadian Senator, who made a great fortune from mining, who would never enter into a venture without first consulting an Irishman, an uneducated man, with the gift of automatic writing under trance. The senator would have a "sitting" with his maps and all available information and, through the automatic writing, would have the ore body marked out for him on the map and specific detail of value given to him. A doctor friend of mine has in his possession a thick file of the Irishman's automatic writing.

I mention these two cases to support my belief that, in field dowsing experiments, observations should be extended from the physical to include possible psychical phenomena and the relation of these to the motivations behind the experiment (see "Dowsing and Huna," *B.S.D.J.*, xiv, 100).

MORE THAN 2,000 WELLS

BY GASTON BURRIDGE

Twice before we have reported to *Journal* readers on the extraordinary dowsing activities of Mr. Jerry Smith. The first time it was via "Desert Dowser," *Radio-Perception*, December, 1952. We could state then that Smith had very successfully located more than 200 water wells in south-western United States. Among his most outstanding wells at that time were two for the Coolwater Ranch near Dagget, California. One of these wells pumped 2,890 U.S. gallons* per *minute*, the other, 3,150 U.S. gallons per minute. Combined, these two wells surfaced more than 6,000 gallons of water each minute! Now, after six years of use, these same wells still continue to deliver a like volume of water. They are, and have been, pumped twenty-four hours a day for between six and seven months of the year. Since these two wells were first brought in, a conservative estimate of their water yield is placed as well over nine U.S. *billion*† gallons! That is quite a drink.

Since these two wells were drilled, Mr. Smith has located another well for Coolwater which delivers 2,600 U.S. gallons per minute from the bottom strata, and 3,100 g.p.m., from the top strata! This well delivers its water rating without affecting the flow of either the two above-mentioned wells, or they, its flow! In addition, Smith located a smaller well, near the new ranch house which affords 900 gallons per minute. This water is used for

* One U.S. gallon equals 1.20094 English gallons

† A U.S. billion is one thousand million

domestic purposes—outside and in—and is also used in connection with a heat-pump for heating the house in winter and cooling it in summer.

It should also be recalled, we believe, that these four wells have been located in the Mojave River valley where geologists say you can drill a hole *anywhere* and find water, *but* where Coolwater had already drilled *many* holes before contacting Smith and the *best one* they found only produced 280 gallons a minute! More than this, many of the holes they had drilled—*just anywhere*—were not even worth putting a pump of any kind over!

Another outstanding well located by Mr. Smith in the same general area as those for Coolwater, was for the Hills Brothers' Ranch. This well is pumping at the rate of 4,000 U.S. gallons per minute.

Our second report on Smith's dowsing came in *Radio-Perception*, December, 1955, with "A Thousand Wells." The title itself indicates the growth of the Smith water-finding activities. A review of this story will show a wide variety of locations and types of ground worked. Between 1952 and 1955, Mr. Smith had received quite a bit of publicity regarding his dowsing prowess not only at our hands but from others as well.

As more than three years have passed since some of the work reported in "A Thousand Wells" was done, and since those three years have been ones of exceptional drought in our south-western country, we will report on their present status later.

On June 20th, 1958, we called upon Mr. Smith again, making a tape recording of more than an hour's interview. We learned that his dowsing activities have now resulted in well over 2,000 locations. His same high rate of accuracy maintains. Many of these additional sites have been made for old customers! One of the most interesting facets we noted was that Smith's work appears to be now definitely including a much larger proportion of wells for corporations needing very sizeable quantities of water.

Also recently, Smith has located two big wells for certain U.S. Government Agencies! We wondered, out loud, "Where was the U.S. Geological Survey in these instances?" How comes it that outside talent has been brought in—yea, even *allowed* in—to find this needed ground water? Zounds! Our team is not together! Is the reflective coating on the back of the mirror which the U.S. Geological Survey has been holding up for our viewing all these years beginning to indicate cracks and chips? Surely some sort of blemishes seem to be showing!

One of the most interesting dowsing accomplishments noted in "A Thousand Wells," had to do with Smith's locating a well at Paradise Valley, near Joshua Tree, California. This area is in a high-altitude desert region above 3,600 feet. A review of this instance indicates that the Paradise Valley subdivider had already drilled two wells, one 450 feet deep, the second 800 feet deep before

calling in Smith. These two wells produced only about 60 gallons a minute combined! This was far from sufficient. The two wells were situated on the lowest ground of the subdivision and were the result of consultation with reputable water engineers.

These water engineers had told the subdivider that he could *not* expect to find more water *anywhere* on the property! This is an important point to hold in mind regarding this story.

The owner got in touch with Smith. Jerry made a location on the *highest* ground of the property. The well was drilled and they obtained 326 gallons a minute from 261 feet! This was the location at which, it is reported, considerable money changed hands as a result of wagers on the successful completion of the well!

We asked Mr. Smith particularly about this well. Did he know how it was functioning lately? Has use of the water impaired its flow? In other words, had Smith perhaps, "just been lucky and tapped a pocket full of water in the rocks?" Was this water an accumulation of the centuries, and when it was gone would there be no more? We were anxious to know how this one well had stood up in the face of three successive years of deepest drought conditions.

"Yes," replied Smith, "The well is still very good. The fact is, I talked to its owner just a few days ago about it, when he accompanied me while dowsing the locations for more wells on other of his property. If we struck a pocket of accumulated water it must be a pretty big one!"

As large volume wells are always important—though not necessarily more interesting (except to their owners) than smaller ones, as far as dowsing is concerned—we asked Jerry which was his largest producing well. He thought a moment, then answered, "I think it would be the one for The Arlington Canal Co., of Arlington, Arizona. They put a 150 horse-power motor on a pump over one of their big ones and it is producing between 5,000 and 6,000 U.S. gallons a minute!"

"Was that the site which was over a veritable underground river?" we asked.

"That's the one," replied Smith.

The Arlington Canal Co. was one of the concerns to whom we wrote in 1955 regarding Mr. Smith's locating work, and from whose secretary we received a recommendation for Smith of the highest order.

As we had now taken care of the largest well, we turned to his most interesting one. Which one of his more than 2,000 did he consider his most interesting? This, of course, is a difficult question to answer objectively, especially when one has dowsed so many locations over so long a time. But Smith replied, "I guess I'd have to say that my most interesting well—or one of them—would have to be a well for the city of Highland, North Carolina. That was the first time I ever map-dowsed a well!

I had some correspondence with the city officials relative to their water problems. I told them if they would send me a map of their present well locations I'd try to outline a procedure for them. Their city engineer prepared the map, and in going over it I found that one of their present wells was not too far from the centre of an underground stream, so I suggested they deepen that well from 500 feet to 800 feet, saying that if they did so they would get a much better flow of water than now. They did this, and the bore produced three times the water it previously had. This result led to my then going to Highland personally, and making other locations for them. Some of these have now been drilled, I understand. In such cases, often the best well sites are not located on city-owned property—and the city dads do not wish to incur the expense of buying or otherwise acquiring the water rights. Hence one has to choose the best site under the circumstances. This is often not so good from several points of view. Frequently, a few feet one way or the other makes the difference between a good well and a poor one. Many persons do not realise this. A dowser can't move the water around to suit himself or the customer. Water, like gold, is where you find it. Especially is this true in mountainous or hilly country."

"Had the people at Highland heard about Henry Gross?" I asked.

"Yes," replied Smith, "and they had even contacted him, I believe. But there was quite a difference in our fees, it seems. Gross gets $5,000 for the location and $100 a day for supervising the drilling, I understand. I got my expenses and not a tenth of that fee—which is some difference!

"Another interesting well which I recently did—though a very small one—was for the Rheem Manufacturing Company at their new plant in West Riverside, California. They set their office building on a rocky hill four or five hundred feet higher than the surrounding valley. Then, they wanted some domestic water for it! I asked them how much they would like and was told 200 gallons a day would suffice. I almost shook my head "No" at finding 200 gallons a day on that rock pile!

"They had already drilled one small well, which was dry. Again this bore was on the low ground. I took them up the hill two hundred feet farther, where I found a small amount of water. We drilled to 68 feet, and they are pumping 1,000 gallons a day from 28 feet!"

Mr. Smith told us about a string of 10 wells which he has recently located, but about which we cannot write specifically at present. These wells are located for two very large corporations who are working closely together on a proposition which involves the important use of this water. In fact, the whole proposition rests on the ability to obtain a constant, unfaltering supply of good water!

None of these wells will deliver *less* than 2,000 gallons a minute. Some of them will produce much more than this. These wells are between 300 and 400 miles apart at extremes, but probably not more than 200 miles separates any two sets of them. The corporations involved are of a highly technical nature where science has held a traditionally high place of respect, and a long tenure of office. Thus it was that we were amazed to learn that *one* dowser instead of a swarm of geologists had made *all* the water well locations for them!

But large corporations are not the only entities which have staked considerable of their hard-earned cash on Jerry Smith's water finding ability. Individuals have also. One of these laid out $50,000 for an option on an entire valley of 300,000 acres after seeing a water survey of that valley made by Smith. The man was Mr. Keith Waldon, of Tucson, Arizona.

How this survey was conducted might prove interesting and helpful to other dowsers faced with a similar project. The valley was flown over, at low altitude, in opposite directions, and then at right angles to those first flights. There were three men in the plane, the pilot, Smith, and another man with stop watches, pencil and pad.

With his forked stick in dowsing position, Smith would say, "Now," at the stick's proper indication. The man with the stop watches would note the number of seconds since the last "now," and jot it down. Knowing the plane's approximate speed, and having started a watch at a given point, the distance from that point could be determined roughly on the actual ground. Going to these points afterwards, it was then a simple matter to find the best spot. Here all pertinent information relative to the well could be consolidated. This saved much walking. Working the valley lengthwise, then crosswise by air, gave approximate intersection marks which could quickly be approached by jeep instead of on foot.

I asked Jerry if any of his family before him had any dowsing ability. He replied that as far as he knew none of them had any. Smith has a son sixteen, a daughter thirteen. I asked if either of his children had shown any interest in dowsing. He told me the stick worked for the daughter, but not for the son. It has often been noted that such gifts seem to follow from father to daughter, mother to son.

Thus does dowsing's part in our civilisation grow despite efforts to prevent it. And thus by *works* also, are the scales of superstition flicked from its habit. Fact may be debauched, but it cannot be destroyed. So, as Russell Herman Conwell says in his *Acres of Diamonds*, "The constant execution of a definite function gradually affects the structural modification."

WATER UNDER THE NURAGHI

The following is a translation of an article which appeared in *L'Unione Sardi* of September 18th, 1958.

BY ENRICO VINCI

This story begins at Cagliari, in the course of a visit to the Nuraghe* of Barumini ; the visit was of a simple educational nature, and I was far from expecting what resulted. I admit that these ancient monuments had always been of great interest to me ; but my interest increased when I discovered that the Nurage I visited had been constructed over an abundant source of pure, fresh water, since in this old building itself there is, even to-day, a well from which water can be drawn up in a vessel with a long rope attached.

Now, how had those remote ancestors of ours been able to discover that, at a considerable depth, there was a flow of the precious liquid ? Were there in those days, as in our own times, men called Rhabdomantists—those individuals who, provided with a forked rod, are sensitive to underground currents ? We are able to reply in the affirmative, since in the school of the Tarquin *Haruspices* in the Tuscan epoch, were taught among other things, matters concerned with underground water; and those who carried out such work were called "Barinula," a term translated *Acquileges* by the Romans. They used, however, not the forked rod but the curved staff or wand known as the *lituus* of Tuscany with a technique of its own.

My guest at Cagliari, who is also a radiesthetist, was equally interested in my discovery at the Nurage in Barumini. He obtained for me an ordnance map of the district on a suitable scale, in order that I might be able to pick up the course of the underground waters. This is well within the ambit of Radiesthesia to-day, since the Abbé Mermet proved to us long ago how he was able, from his study in Switzerland, to do research work on the sub-soil of far-distant Brazil.

With the aid of this ordnance map and my pendulum (which is more useful than the rod for this kind of work) I was able to discover the presence of several veins of water. *Each of these, traced with care, was found to pass under one or more of these ancient monuments.* This was the case all over the zone examined by me.

* According to the Encyclopaedia Britannica, a Nuraghe is a double-storied masonry tower in the shape of a truncated cone, built of large stones laid in regular horizontal courses. They are generally 25 to 35 feet in diameter and about 40 feet high, and usually contain an upper and lower chamber connected by a winding staircase. They were built primarily for the protection of the adjacent villages by the ancient inhabitants of Sardinia.—Editor.

Now, the problem is this. What in effect were these Nuraghi? Were they fortresses, or temples, or ritual edifices? In the case of fortresses, it is evident that water would be a necessity. For a temple devoted to magical "rites," it would be the "field of force" created by the flowing water which would be interesting. The question has been studied in England by archaeologists. Also in Brittany, and in the case of Celtic monuments it has been found that the "altars" were invariably raised over the point of intersection of underground streams.

The Cespera in Rome has also carried out prospections around the altar of the Temple of Apollo at Veio, with similar results. I may add that it is not necessary that every Nuraghe should have a well of its own in order to justify its situation.

In conclusion, I propose to carry out some tests in the neighbourhood of some of the more important monuments, with the aid of a good Dowser, and if the results of borings prove positive, we shall have really solved the water problem for Sardinia, by utilising the research work carried out by our remote ancestors, and the message they have passed on to men of good will.

TELESTHETIC SEARCH FOR A MISSING DAUGHTER

BY J. GUMPERTZ

Translated from an article in R.G.S., May/July, 1958, and reproduced with the permission of the Editor.

When I returned to my home one day after a hard day's work I found a strange woman waiting for me who appeared to be very worried and anxious. She told me that three days before her twenty-year-old daughter had disappeared without a trace. In the morning she had gone out to her work as usual. Her grandmother had accompanied her as far as the foot of the mountain, where they had parted company. Since then no one had seen the girl. The police had made inquiries at all likely stations without result and the mother had gone to the terminus of the steamship line on Lake Lugano to look for her. She, the mother, was afraid that the daughter might have done herself an injury. A Mr. L., who had recommended her to me in a letter she showed me, had told her that I had helped other people in desperate

cases and might help her now. The lady had brought me a photograph and a bit of a dress which the daughter had worn, as a sample, and after I had examined them with a pendulum I was able to say to the harassed mother : " Look, the pendulum tells me that your daughter is still alive. Moreover, after she parted from her grandmother she did not go to her usual place of work which was in the Upper Town, but had gone to the boat station."

" But," the mother said, " I went to the other end of the route and she had not got off there."

I took the time table and held the pendulum over the name of the ship on which the missing girl might have travelled. Using mental concentration, I made out that the girl had embarked on the ship which leaves at 10 o'clock and serves only half the route; this explained why the mother had waited at the terminus in vain. Holding the girl's photograph in my left hand and the pendulum in the right hand over the map, I told the mother : " You must seek your daughter at this point X and not at the end of the route. Looking very incredulous, but obviously relieved, the woman then left me.

Next evening she returned and at first glance I saw that she was full of joy and confidence. " What you told me yesterday is really true " she said, overflowing with gratitude. " I went this morning to the place you marked and I asked the man at the landing stage about my child. I showed him the photograph and he assured me that she had actually arrived by the 10 o'clock boat. Thereon I sought out the local pastor, who told me that my daughter had attended the service at 6 o'clock that morning. He could even tell me what dress she was wearing and luckily he knew where she was lodging.

Wisely the happy mother had sufficient self control not to burst in on her daughter, but came to me for advice. " I have not dared to come on her without warning. Also I am too excited and fear that at my sudden and unexpected appearance she might do something rash, and so " she asked. " what do you advise me to do to get my daughter home ? " I advised the mother to go back to the pastor and tell him all the essential details confidentially. It was surely proper to ask him in his professional capacity for his mediation and to deal tactfully with the daughter.

Full of joy and hope the woman left me. Through the mediation of the pastor mother and daughter were happily reconciled. Later on the grateful woman said to me: " If you had not told by what route and in which boat my daughter had gone I could not have found her again so easily and quickly." For myself, I was glad that through my skill as a radiesthetist I had been able to perform this act of charity.

NOTES AND NEWS

Mr. R. M. Robertson (B.S.D.), of Sorrento, British Columbia, wrote as follows on July 25th :

" From my own experience of finding water with the aid of a divining rod I can record three successful wells as follows :

" I located a small flow of water 17ft. underground and on a hillside above the house at an elevation of 60 feet. The distance from well to house is 400ft.

" The water is syphoned up 17 feet and runs down an incline a distance of 400 feet to my home. The 400 feet distance over which the water is conveyed runs through a polyethelene $\frac{3}{4}$in. tube or pipe. The flow was of a limited nature to begin with, but with steady draining I can now water garden and lawn sixteen hours daily when necessary.

" Two other wells were located at Shuswap in B.C. last summer, 1957. These wells have fair flows, but with further draining will develop into first-class wells. The depths in each case were 20 feet and 30 feet. These wells are intended to water 200 head of stock during the winter months.

" An example of success with the aid of a divining rod in the location of ores without the aid of a sample at a distance of one mile is interesting. The day before I had in my hand a sample of zinc ore weighing several pounds and after examining same for a period of several minutes put it away for safe keeping.

" The following day I journeyed thirty-five miles to a wide open field and by way of experiment concentrated on visualising the sample of ore I had held in my hand the previous day with the suggestion to my subconscious mind that if this type of ore existed in the vicinity I would like the rod to lead me to the location.

" I got a distinct lift of the rod in one direction and on following it out over open country I crossed a wide river and halfway up the slope of the valley I came to an old tunnel apparently dug by a prospector over fifty years ago. When I took a sample of ore from the mouth of the tunnel it was officially identified as zincton or zinc ore. This took place in 1953. It would seem from this experience that samples are not necessary.

" I use a whalebone rod, but the best results have been obtained by means of a vulcanite composition tube preferably reinforced with a fibreglass liquid or binding agent to lessen the possibility of breakage.

" I have been using the Major Creyke system of depthing but prefer to touch the metal rod placed within the main stream band with the tip of the divining rod as I proceed in a sideways direction. The results to date have been quite consistent and reasonably accurate."

The *New Zealand Herald* of October 11th, 1957, contained an account of how an abundant water supply was obtained at Putaruru through the efforts of one man, Mr. J. Ivor Hay. The first reservoir for this town had been built in 1943 with a capacity of 60,000 gallons when the population was only 800; when it reached 3,000 the supply had to be increased. Mr. Hay, whose forebears were Welsh miners, had a strong instinct that water in abundance could be found at a certain spot and with the occasional assistance of a friend cut a shaft 40 feet deep at 12 feet by 10 feet in area. It took him a year to do this and two more years to complete the job. Putaruru now has a new reservoir holding 500,000 gallons. Mr. Hay did not know anything about water divining at the time, but has discovered that he has some aptitude for it.

* * * *

A letter from J. M. Wech, written from Warkworth, New Zealand (N.I.), records how the writer was helping a diviner to put down a bore by hand. The diviner had located seven streams at depths ranging from 33 to 62 feet. At the time of writing the bore had reached 44 feet and four of the streams had been tapped. He had put down hundreds of bores between Whangerei and Auckland in the past thirty years, varying from 30 to 120 feet in depth without any failures.

* * * *

Talks entitled "On Being a Dowser" by Mrs. Norah Millen were announced by the *New Zealand Listener* for February 10th on Dunedin 4YA and for February 13th on Wellington 2YA.

* * * *

The *Neue Illustrierte* (Cologne) of May 21st, 1958, contained pictures illustrating the work of medical radiesthetists, in connection with the case against a dowser, Adolf Päsler, and two doctors of Wuppertal, Aschoff and Kurthals. At their request the dowser had examined the house of a patient and discovered that it was affected by injurious radiations. He had then installed a neutralising apparatus. The doctors were sentenced to a year's imprisonment and a fine of 1,000 D.M. and Päsler to imprisonment for nine months.

* * * *

A picture in the *Illustrated London News* of July 5th showed Signor R. Berlincioni testing with his pendulum for authenticity a statue of Venus which until recently was standing at a secondary entrance to the Palazzo Pitti in Florence; some experts now claim it to be by Michelangelo.

* * * *

A long article in *The Gazette* of August 1st, 1958, referring to the golden wedding of our venerable member, Mr. W. H. Burgoyne, of Torcross, Devon, recalls his prowess as a dowser, especially in connection with his successes in tracing the movements of missing persons.

There was an article in the *Fresno Bee* (California) of September 17th, 1958, about the life as missionaries in Brazil of the Rev. and Mrs. Erven A. Thiessen. He said that the seven wells in the institute's grounds were found by "witching." The natives believe that subterannean waters send out unknown rays which have a disturbing effect on people and when the Thiessens found they were suffering from loss of energy and appetite and from constant headaches they were persuaded to move their bed; when they had done this all their ailments disappeared. A cow tied over a place whence rays emanate, becomes ill and dies. The natives do their work in accordance with the waxing and waning of the moon. Seeds are planted with the waxing and no planting is done with the waning. The earth in Brazil is full of worms. A tree felled during the waxing moon becomes full of worms and worthless, but no worms enter the tree if it is felled in the waning.

* * * *

Articles have appeared in several papers about an instrument now being used for archaeological research, for instance in the *Oxford Mail* of July 26th, and the *Illustrated London News* of October 4th. The instrument is called a proton magnetometer and it is in two parts. One part, the "eye," consists of a bottle of water wound round with wire coils. The "brain" is a portable box, weighing about 23 pounds, containing 150 transistor circuits. Very briefly, it works on the principle that the speed of gyration of the protons in the water depends on the strength of the earth's magnetism at the place where the bottle is situated. By an electrical signal carried along leads from the eye to the brain, the latter can indicate minute variations in the speed of the protons, thereby indicating the changes in the magnetic field. Changes are due to differences in the texture of the soil, such as clay and gravel, whilst baked clay, as in pottery, becomes permantly magnetised.

The instrument has already been used for investigating several sites, plans of which, as well as pictures of the instrument in use, were printed in the *Illustrated London News*.

According to an article in the *Daily Telegraph* of October 14th an amateur diviner, Mr. P. A. Raine, of Bexley, Kent, challenged Dr. Martin J. Aitken, of the Research Laboratory for Archaeology and the History of Art at Oxford, who has been using the instrument, to a test in which he hoped to prove the superiority of dowsing over this instrument, for the discovery of underground remains.

According to an article in the issue of November 17th, Mr. Raine failed to locate a Roman Kiln which had been previously discovered by the magnetometer and covered up again.

CORRESPONDENCE

Kilimeru Cottage,
Sanya Juu,
Tanganyika.
21st July, 1958.

Dear Colonel Bell,—I enclose the drilling report for Site No. 5, which deserves some comment.

The driller, in order to avoid laborious manoeuvres of his heavy drilling rig, drilled some 10 feet away from my selected point. At 125ft. only 275 g.p.h. could be extracted, and the client decided to continue drilling to 180ft. At this point there was no change in the water rest level and the driller advised against a further pump test as being a waste of money and time as he was certain there could be no increase in g.p.h. I was then called in to advise and I insisted on another test with the cylinder at 175ft. After pumping at about 2,000 g.p.h. for an hour the driller kept on saying that the water would " break " any moment to 275 g.p.h., but instead of this happening the water, which up to this point had a cloudy appearance, suddenly became crystal clear. The driller was bewildered at this turn of events, but I was able to explain to him, after I had examined the dowsing reaction over MM,* what had actually happened. This was, of course, that the flow-aquifer had been diverted from its normal course to the drilled hole, due, no doubt, to the disturbance of the strata caused by the pounding of the heavy drilling bit. This particular driller has now had an excellent demonstration of the importance of drilling over the exact point selected. The g.p.h. is shown as 1,800 g.p.h., but in actual fact it is probably nearer 3,000 g.p.h.; a higher rate of pumping was not tested. The quantity of water more than satisfied the client. You will observe that the report states that water was struck at 25ft. This was a perched body of water sufficient only to keep the rig working, but the main percolation aquifer was entered at 70ft. against my estimate of 65ft. In some respects these drilling reports can be very misleading.

Yours sincerely,

A. C. WILLIAMSON

* According to Mr. Williamson's method of prospection, MM are points of reaction at a significant distance on either side of the flow line.—Editor.

REVIEWS

ALUMINIUM UTENSILS AND DISEASE. THE DANGERS INHERENT IN THE WIDESPREAD USE OF THE METAL

By H. Tomlinson, M.B., Ch.B., M.R.C.S., L.R.C.P.

The C. W. Daniel Company Ltd., paper covers, 61 pages, 6s.

A number of articles and books have been published on the dangers of using aluminium utensils for cooking. This small volume is especially to be welcomed because it shows in an admirable manner how it is virtually impossible fully to appreciate the harm that aluminium can do without understanding what is meant by homoeopathic potencies. In other words it is the activation of aluminium in the system which does the damage and not solid aluminium particles as such, although these themselves can become activated in the process of digestion. Aluminium poisoning means that the metal becomes activated in much the same way as a homoeopathic remedy is potentised, and that is why homoeopathic remedies are required to clear the system of the poison.

Dr. Tomlinson has done an immense amount of work in testing various proprietary brands of foods and drinks. By his own method of testing he finds that contaminated foods give different degrees of aluminium activation, which can be stated in terms of potencies. It is a question as to in what degree foods giving aluminium reactions can affect health, but some people are quite extraordinarily sensitive to the metal. Most of the harm is probably done in heating food and liquids in aluminium containers, and it is interesting to notice that the author finds that stainless steel pots and pans will not only avoid aluminium contamination in themselves, but have the power of actually destroying aluminium potencies in the food cooked. He recommends utensils made of stainless steel with an external bonded copper base which, though expensive, will last a lifetime.

Typical cases of disease are discussed from the point of view of aluminium intoxication, and it is not difficult to become convinced that aluminium is only too often the causative factor of maladies such as stomach and duodenal ulcers, appendicitis, bowel and kidney infection, and thrombosis. Dr. Tomlinson tells us that he has repeatedly, by anti-aluminium measures, prevented recurrent attacks of heart thrombosis in his patients. He also explains how aluminium can produce a cancer diathesis. He finds that aluminium contamination lowers the percentage levels of copper and sulphur in the system and uses these two elements in potency to antidote the metal. I think it is true to say that Lycopodium also comprises a valuable antidote.

B.S.D. members will appreciate the high place that Dr. Tomlinson gives to radiesthesia in the practice of medicine. He says that without its aid he would consider himself blind, deaf and dumb! It is only through radiesthesia that aluminium contamination can be detected and the correct remedial measures taken. And incidentally, he demolishes the idea sometimes put forward that, because the soil contains a large amount of aluminium silicate, aluminium is in any case absorbed

in our bodies. Food grown naturally without the use of chemical fertilisers does *not* produce aluminium poisoning.

Being aluminium sensitive myself and having come across many other sensitives, I do not think Dr. Tomlinson is putting the matter too strongly when he writes: "Let everyone beware, then, that if they persist in using aluminium utensils, they can be cooking for themselves a dish of death." This book is a valuable addition to literature on the subject treated, enhanced by the quotation of a number of medical and lay authorities, and it includes a useful bibliography.—V.D.W.

LA RADIESTHÉSIE POUR TOUS

JULY

p. 197. Climates of health.—The advice has previously been given to readers of this periodical to test with their pendulum places they intend visiting for a holiday to make sure that it will benefit them to the maximum extent from the point of view of their health. In this article W. Herrinckx gives instances of types of illnesses which appeared to be greatly benefited by residence in particular places. For example, three places in France, Germany and Portugal respectively are mentioned where cases of arteriosclerosis were greatly benefited. The conclusion drawn is that situations do have a very definite bearing on health and that it is worthwhile consulting one's pendulum before visiting a place.

p. 199. Employment of planetary influences.—In this article Mlle. H. Poreye describes how the influence of the sun and planets can be employed at a distance for therapeutic purposes by means of a simple apparatus of solenoid type. The apparatus can be placed under the bed of the patient at night, or on a photograph of the patient during the day. This apparatus and a second employing two solenoids are illustrated by diagrams.

p. 205. Harmful influences in automobiles.—M. Hommel is of the opinion that motorists can be adversely affected by harmful radiesthetic influences, which can cause car sickness, muscular fatigue, sleepiness, articular and vertebral pain, and so on. People can also be affected by a build-up of static electricity which, it was thought, could be obviated by trailing a chain from the vehicle along the ground. Radiesthetic tests seemed to show, however, that while the chain was at first effective for combatting all adverse influences, its utility in this respect did not last. M. Hommel has, however, discovered an apparatus to his satisfaction for cutting out these adverse influences, which employs three minerals and four colours, the apparatus being based on work previously carried out by the late M. Turenne. The apparatus has proved effective over a period of several months for neutralising the harmful rays (*ondes nocives*) of the automobile.

p. 207. Group activities.—W. Servranx discusses the value of pendulum work for assessing the contribution which individuals can make to a group and their suitability for sharing in the work of such a group.

p. 209. Betting on horses.—"Cobra" comments that the best way of keeping your money is not to try your hand at betting. But for

those who wish to do so, he outlines a practical way of so doing with the assistance of radiesthesia. Such activities should be regarded primarily as providing an agreeable way of developing your radiesthetic skill, and you can find the horse of your choice without necessarily putting money on it! The method described employs a number of discs, which are illustrated in the article.

p. 213. Magnetism of ideas.—Contrary to magnetism as known in physics, where opposite poles attract, mental magnetism is characterised by the *attraction of similars*, so " Apollonius " says. The statement is not new, and it was Hector Durville who best exemplified the principle towards the end of the last century. In a nutshell " Apollonius " is saying in this article that a bad man will find himself quite naturally in bad company, while one who prays will attract forces which syntonise with his own evocations.

p. 215. Playing cards.—J. Bervroux interprets playing cards as witnesses of events, people and things.

p. 217. A " number-witness " pendulum.—The rather strange accentuation of the value of numbers in radiesthesia is now extended to a " number-witness " pendulum (we often talk about " word-witnesses "—V.D.W.), which consists of a tube in which a piece of paper is inserted on which a number is written. The tube is closed by a cork, to which is attached a suspension thread. To carry out a research you use a 100 cm. rule arranged N-S with zero towards the North. You think calmly of the research you are going to carry out and with the number 1 written on a piece of paper inserted inside the tube, you slowly move the pendulum up the rule until it oscillates across it at right angles. The number on the rule at which the pendulum oscillates represents the number required inside the tube for the research. The number for a research for underground water is given as 51, while that for a research for underground water when it is made on a map is given as 43, and so on. Lost persons need a number between 20 and 71, according to the particular case. It is stated that, once the method is properly mastered, the results are excellent.—*L.R.P.T.*

p. 220. The comparative prospection.—In searching for water, coal or uranium, the dowser is always on the look-out for pipes and other snags so as to avoid errors, such as mistaking a saline deposit for a sheet of oil. The " comparative method " of prospection consists essentially in checking your findings by other means available to you. For instance, the likelihood of finding oil can be closely assessed by examining the local geological conditions. And it is good practice to make a geological section of the ground traversed and to compare conditions with those at neighbouring places where the water, or whatever it is you are searching for, exists. M. Servranx advises the employment of map dowsing, which may easily avoid errors made on site through some solely local influence of no importance, such as an old excavation. It is sometimes found that, after all information available to the dowser has been obtained, the pendulum will, as it were, revise its original indication and give a true and precise appreciation of what is actually there.

p. 223. Radioactive rain in the Ardennes.—Following the atomic bomb explosions in the U.S.S.R. last May, Lt.-Colonel Stevelinck examined the rain water at Baraque Fraiture in the Ardennes (Southern Belgium) during the succeeding fortnight. On the night of May 20th-

21st last, muddy rain of a pale ochre colour, composed of water and clayey sand, fell at Baraque Fraiture and the surrounding heights. This yellow-coloured rain water gave a reading of 520 on Colonel Stevelinck's wavemeter (corresponding to 500 Angström units on the Bovis biometer). It covered all the heights and, as had been previously found, where there was grass (in some places 1 cm. thick) evaporation was extremely rapid. The atmosphere was very radioactive, giving a reading of 450. This radioactive rain was found only on the heights and not in the valleys. The muddy rain water is bad for vegetation, as for example : dandelions 280 ; dandelions plus rain water 180. The writer goes on to explain that in Russia there occurred a gigantic cyclonic upheaval with the addition of a waterspout, producing radioactive diluvial rain. These waterspouts take up water charged with mud from the rivulets. As the ground is a mixture of sand and clay, small particles are taken up to a high altitude by the waterspout formed by the cyclonic upheaval, and are distributed over Europe by the east wind in a radioactive cloud. At the end of a fortnight all particles have become polarised, the molecules come together, and large drops of rain water are formed and fall to the earth.

p. 224. Superiority of radiesthesia in therapeutics.—By Emile Christophe.

AUGUST

p. 227. My secret ?—Father A. Desbuquoit denies having any special dowsing secret to impart concerning the finding of underground streams and modestly claims that he has no knowledge of this character unknown to others. He tells us that during his first experiments in radiesthesia, when he was fifty-five years old, he observed one day that his divining rod reacted as he looked at a pupil playing about 20 metres away. Some moments later the child moved and no further movement of the rod was experienced, but when another pupil passed over the same place, the rod reacted again. And this phenomenon was repeated again and again. The writer came to the conclusion that always under the spot where this phenomenon occurred, there was what he calls a strong vein. " When a man crosses a zone which is exactly over a vein of water, he submits unconsciously to an action such that, if I am at this moment looking at him, my rod sets up a movement as violent, or nearly so, as when I pass over the current myself." Generally the man in question feels nothing, and while the eye of the observer sees nothing, it is through his eye that the dowsing reaction is put in motion. Father Desbuquoit later found that the same reaction takes place when he looks at animals, plants and inanimate objects, and even at the bare soil, when they are situated on the vertical of an underground stream, having first observed the non-irradiated surroundings. An advantage of the method is that very rarely are the parallel bands of influence detected, and also it is possible to examine the radiesthetic influence in a house without entering it.

p. 230. Practical experiment in activating words.—F. Servranx shows how, with the help of a diagram consisting of a double decagon, you can charge a wine glass of water with the influence of certain fruits, the names of which are written around the inside of the inner decagon. He claims that the double decagon activates the words.

p. 233. Is your fatigue atomic ?—W. Herrinckx says that many people, complaining of fatigue, attribute it to the effects of atomic bomb

explosions and the rise of the general level of radioactivity in the surroundings. While not committing himself as to the truth of this, he affirms that the taking of alcohol renders one less sensitive to the influence of mild radioactivity. He goes on to say that many remedies have been found efficacious against affections which, rightly or wrongly, have been attributed by the sufferers to atomic influences. In particular he mentions rhododendron, which often clears up rheumatic complaints and has the curious property of desensitising persons who are particularly affected by thunderstorms and who feel better after them.

p. 235. Photo-witnesses.—It is suggested that the opportunity should be taken when on holiday of making photo-witnesses. If there is a fountain supplied by a spring, take a photograph of it gushing out water. The photograph of the water will then be a good witness of its properties.—*L.R.P.T.*

p. 237. Healing by colours.—This is an article by the late Leslie Thornton, civil engineer and late B.S.D. member, translated from the English from notes by the author published in Great Britain by the A-A-P Press, Stock, Essex, for the London Divining Methods Research Group.

p. 241. The witty retort.—W. Servranx discusses the failure in a person to be ready with a witty retort and how to remedy this.

p. 245. Looking for a house or accommodation.—Suggestions are made as to how the pendulum can be used to help in the search for a house or other suitable accommodation.—*L.R.P.T.*

p. 247. Renewing one's vitality.—" Apollonius " suggests ways in which one's vitality can be renewed, thus warding off the effects of age. He discusses how the subject can carry on his person a suitable radiesthetic disc previously treated by a healer.

p. 249. The philosopher's stone.—Questions are asked by " F.S." as a matter of curiosity, and to provide possible radiesthetic exercises during the holidays, about the philosopher's stone.

p. 252. The Demeter Balance.—Through the courtesy of Mr. Noel Macbeth, a diagram of the Demeter Balance, so named by its author, the late Miss Margaret Douglas, B.S.D., is reproduced.—*L.R.P.T.*

p. 254. Is the moon inhabited ?—Joseph André speculates on this subject, following the receipt of signals said to originate from the moon.

September

p. 259. Action of planetary accumulators on plants.—Mlle. H. Poreye describes how she treats plants and trees with planetary influences. She tells us that Dr. Morichini obtained water charged with the influence of a planet or a zodiacal constellation simply by placing the appropriate sign drawn on a piece of white paper under a glass of water.

p. 263. Division of children into types.—W. Servranx states that the Americans, always prompt to adopt new methods—and to reject them—are returning to-day to European ideas of education in which discipline plays its due part. He goes on to say that both Europeans and Americans fall into the same error of not recognising two fundamental and very different types of individuals, the introverts and the extroverts. He describes how you can tell whether a child is an introvert or an extrovert by using a pendulum over its photograph. Each type requires its own kind of education.

p. 265. Garlic for health.—Bernard Paulet begins by stating that we know that garlic is excellent for hypertension, which is confirmed (so he says) by a diagram included in the article, which is said to emit the same " waves," or influence, as garlic. If you take two rusks, without salt, rub them on both sides with one clove of garlic, cover them with someone's saliva (taken from an empty stomach) and place one above the other, and if you then place them on a round disc of white paper, you have a saliva " pile," which will act immediately to the benefit of the saliva's owner.

p. 267. Healing by colours.—This article, by the late Leslie Thornton, B.S.D., is a continuation of an article appearing in *L.R.P.T.* for August last. He uses a diagram from which he can determine by pendulum the colour needed by his patients. This colour can then be broadcast to the patient.

p. 269. Radiesthetic test of the endocrine glands.—This article describes how the functioning of the endocrine glands can be ascertained from a diagram, which is reproduced.

p. 273. Prospection of the sub-soil.—F. Servranx puts forward the view that, except for the specialist, it is important to find out at what precise time a prospection for water or minerals should be made, if the best possible accuracy is to be attained.

p. 275. Amplifiers which are easy to construct.—Various amplifiers are illustrated by " Cobra," the writer of this article, constructed of crystal and plastic joints.

p. 277. Protection against harmful earth rays.—J. Calté describes experiments he made to provide a screen against harmful earth rays and X-ray apparatus.

p. 281. Some aspects of medicine in Great Britain.—A doctor of Noel Macbeth's acquaintance told him he thought homoeopathy had lost ground in the medical profession in Great Britain because osteopaths and masseurs often prescribe herbal or homoeopathic remedies for their patients. Or it may be, as Mr. Macbeth says, because more spectacular results are obtained with the antibiotics and sulphonamides. He asks whether there has been a similar decline (if indeed there has been one here) in other countries.

p. 282. Radiesthetic bodies.—Professor Bogdan N. Djoritch emphasises the importance of pendulum suspension lengths in radiesthetic work, and he says that these fundamental suspension lengths (as listed, for example, in the table by Voillaume) enable us to obtain the radiation or influence of any energy or substance already known or unknown, and that with these fundamental lengths we are in fact utilising Universal Energy. He goes on to describe how two parabolas can be constructed, one of which emits vital radiation and the other magnetic radiation. The Voillaume suspension length is 201 mm. for vital radiation and 211.2 mm. for magnetic radiation. Professor Djoritch goes on to illustrate how, with the aid of these fundamental suspension lengths, and with the pendulum regulated on an energy or substance, it is possible to construct bodies, either hollow or solid (e.g., cylinders, bottles, etc.) giving out any desired type of radiation.

V.D.W.

END OF VOLUME XIV

BOOKS AND APPLIANCES

Books on *Radiesthesia*, English and foreign, can be obtained from the Markham House Press Ltd., 31 King's Road, London, S.W.3. A catalogue will be supplied on receipt of a stamped addressed envelope.

Copies of *Dowsing* by Pierre Béasse are available at 22s. 6d. ($3.50) and the Schumfell pendulum mentioned therein at £5 ($15) and the descriptive handbook at 6d.—all post free.

The Pendulum, the monthly Review of Radiesthesia: Subscription 26s. at home and $3.80 in North America: *Elementary Radiesthesia*, by the late F. A. Archdale, at 5s. 4d.; Pendulums, of clear and black plastic with nylon thread, at 12s. 6d. and 10s.; and also hollow screw-top pendulums in the same material; also beechwood pendulums at 4s. are all obtainable from the Markham House Press or from Mrs. M. Archdale, 3 Wayside Road, Southbourne, Bournemouth, Hants.

A new edition of *Radiesthesia and some Associated Phenomena*, by T. T. B. Watson, M.B., B.Ch., is also obtainable from the Markham House Press, or Mrs. Archdale.

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The many methods used in the practice of our art become less confusing after reading Noel Macbeth's "Courses," which include special ones for water and mineral dowsers, for medical doctors and for agriculturists, as supplied during the past twenty years. Mr. Macbeth is sole agent for Turenne Witnesses (600), various amplifiers and rules, as also an atomic analyser and a blood (pressure, acidity, anaemia) tester. He is agent for subscriptions to "R.P.T." (29s. or $4.25 p.a.). Texts of three lectures outlining testing-method relationships for Beginners at cost 5s. or $1 by air-mail. Write to "A-A-P," Stock, Essex.

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The Radiesthesia Research Centre, 28 The Mount, Guildford, will construct radiesthetic apparatus and radionic instruments according to individual requirements.

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The following are obtainable from Dr. W. E. Benham, Holt's Crest, Fordcombe, Tunbridge Wells: *Aura Biometer Handbook*, 7s. 6d.; Magnetically Corrected Pendulum, 7s. 6d.; Aura Biometer (including handbook, pendulum and accessories), £8 8s., all post free.

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The "Link" divining rod described by Mr. Guy Underwood in his article on Spirals and Stonehenge (*B.S.D.J.* 62, Dec., 1948) can be obtained from him at Belcombe House, Bradford-on-Avon, Wilts., price 8/- post free in U.K., also old type "Oasis" rod, 10/-, in case; also "Oasis" supersensitive rod, 21/-. Reprints of this article are available at 2/- each. Reprints of 10 Essays on water-divining and archaeology, 15/- the set.

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Messrs. Devine & Co., St. Stephen's Road, Old Ford, London, E.3, supply whalebone Forked Rods 12in. long of the following sections at 7/6 each;

Flat	.. ..	7 mm. x 2 mm. or 3 mm.
Circular	..	3 mm. or 4 mm. in diameter
Square	..	3 mm. or 4 mm.

They also supply the following pendulums:

Elephant Ivory, Spherical or Torpedo shape with cavity	..	25/-	each
Whale Ivory	,, ..	20/-	,,
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All articles are sent post free in U.K.

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Members requiring any of the books or appliances mentioned above should apply direct to the address given, and not to the Assistant Secretary.

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